A Gendered Look at Integration: The Employment of Immigrant Women and Men in Germany

Dissertation

zur Erlangung des akademischen Grades
doctor philosophiae
Dr. phil.

im Fach Soziologie

eingereicht am 23. Oktober 2020
verteidigt am 16. April 2021

an der Kultur-, Sozial- und Bildungswissenschaftlichen Fakultät der Humboldt - Universität zu Berlin

von Frau Magdalena Krieger

Prof. Dr.-Ing. Dr. Sabine Kunst
Präsidentin der Humboldt - Universität zu Berlin

Prof. Dr. Christian Kassung
Dekan der Kultur-, Sozial- und Bildungswissenschaftlichen Fakultät

Gutachter:
1. Prof. Dr. Martin Kroh
2. Prof. Dr. Philipp Lersch

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Magdalena Krieger

CONTENTS

CHAPTER 1

MIGRATION, GENDER, AND EMPLOYMENT: A FRAMEWORK

A common stereotype is that migrants[1] are male. However, women have always made up a significant proportion of the international migrant population. For instance, women accounted for around a quarter of the migrant workers who came to Germany as early as in the 1960s and 1970s (Dorbritz, Gerlach, Scheiwe, & Schuler-Harms, 2016). In 2019, nearly half of the world's international migrants were women or girls (Rubiano-Matulevich & Beegle, 2018). Hence, both men and women around the world were, and continue to be, on the move.

Even so, academic research is largely guided by the male migrant stereotype. Consequently, it pays relatively little attention to the experiences of immigrant women. However, numerous studies show that gender[2] severely affects the living experiences of individuals. This is particularly evident on the labor market: compared to men, women are less likely to be employed, they earn less, and they are underrepresented in leadership positions (Schrenker & Zucco, 2020). Such inequalities matter because employment is vital for all individuals as it provides financial resources and is closely linked to the receipt of social welfare in the event of unemployment or retirement, as well as to the social recognition from others (Ludwig-Mayerhofer, 2012). Therefore, gender inequalities on the labor market have sparked heated public debates as well as intense academic research. According to sociological theory, these gender inequalities are rooted in economic rationales, normative ideas of gender, employment discrimination, as well as in institutions (Achatz, 2005).

[1] Migrants, in contrast to refugees or asylum seekers, leave their home countries to improve their living conditions or to accompany family (UNHCR, 2016). This dissertation focuses only on migrants, thus excluding refugees.

[2] This dissertation acknowledges that 'sex' and 'gender' are distinct concepts. While the former focuses on biological features, the latter is socially constructed and refers to behaviors associated with masculinity and femininity. Importantly, 'gender' is not determined by 'sex' but individuals can see themselves as men, women, as having no, or non-binary gender (West & Zimmerman, 1987; Westbrook & Saperstein, 2015). However, the survey used throughout this dissertation only allows for a binary distinction. Hence, this dissertation performs gender analyses by distinguishing women and men. This distinction is discussed in this dissertation's conclusion.

Compared to natives, immigrant women and men are even more unequal on the labor market. While the gender employment gap in the OECD region in 2019 amounted to nine percent for natives, it was fifteen percent among foreign-born residents (OECD, 2020b, 2020a). These empirical patterns are consistent across time and space (Ala-Mantila & Fleischmann, 2018; Boyd, 1984; Raijman & Semyonov, 1997). Still, social science research only provides partial explanations for the wider gender inequality gap among migrants. On the one hand, sociological reasoning on gender and employment alone cannot explain these gaps as it does not account for the highly disruptive event of migration. On the other hand, integration theories do not provide coherent explanations as they are gender-blind, guided by the male migrant stereotype. Hence, this dissertation synthesizes the two theoretical strands to address the following question: *Which factors determine the employment of immigrant women and men?*

To tackle this research question, this dissertation begins by synthesizing sociological ideas on gender and employment with Eisenstadt's (1954) theory about post-migration life. Crucially, Eisenstadt (1954) assumes migration comprises three stages – that is, the migration decision, the migration process, and post-immigration life – which is in line with insights from life course research (Elder, Kirkpatrick Johnson, & Crosnoe, 2003). Adding notions of gender and employment to this framework shows that migration decisions and processes can be expected to be highly gendered, translating into divergent employment trajectories for immigrant women and men, thus aggravating pre-existing gender inequalities after migration. Yet, evidence on gendered migration decisions and processes is scarce, with existing literature most prominently focusing on differential discrimination against migrant women and men (for instance, Blommaert, Coenders, & van Tubergen, 2014). By contrast, other explanations, such as gendered selection into migration, the division of labor, or socialization are not yet explored.

The three empirical papers of this dissertation fill these gaps in the academic literature. In its first paper, this dissertation looks at couples' migration decisions and how these affect the employment of immigrant women and men (Krieger, 2020b). In its second paper, this

dissertation considers changes in women's and men's time spent on domestic work over the course of migration (Krieger & Salikutluk, 2020). In its final paper, this dissertation explores the significance of adolescent socialization for female migrants' employment trajectories (Krieger, 2020a). All three articles are set in Germany and use data from the German Socio-Economic Panel (SOEP). As Germany has a long immigration history, hosts the most migrants in Europe (IOM, 2019), and features wide gender gaps in diverse labor market outcomes (OECD, 2017), it constitutes an interesting and relevant test case for these questions.

The remainder of this chapter first presents an overview of integration theory and immigrant employment. Next, this chapter turns to insights on gender and employment, integrates them into integration theory and concludes by outlining this dissertation's papers.

Integration Theory and Immigrant Employment

The goal of this section is to illustrate that existing theories of immigrant integration alone cannot explain the employment gap between immigrant men and women as they are gender-blind. Therefore, this section first provides a historical overview of theories of immigrant integration. This overview is further meant to verify the theoretical framework that this dissertation takes as its basis for modelling immigrant integration. The section then moves to discussing domains of integration and, specifically, the role of employment. Finally, it presents patterns and determinants of immigrant employment and the stark differences in the employment experiences of immigrant women and men.

Assimilation and Integration Theories

Early theories on immigrants' lives argued that immigrants assimilate to members of the native society. Classic Assimilation Theory, formulated by Robert Park and Ernest Burgess (Park, 1930), defines assimilation as "a process of interpenetration and fusion in which persons and groups acquire the memories, sentiments, and attitudes of other persons of groups and, by

sharing their experience and history, are incorporated with them in a common cultural life […]" (Park & Burgess, 1969: 735). Accordingly, toward the end of any assimilation process, boundaries and distinctions between migrants and natives have entirely disappeared and migrants are no longer recognizable as a distinct social group. Depending on the cultural distance between the native society and its immigrants, this process may take multiple generations. The authors consider this process to be natural, inevitable, and irreversible, though, in theory, not necessarily one-sided (Hoesch, 2018).

This view is also shared by Milton Gordon in his seminal work, "Assimilation in American Life" (Gordon, 1964). Gordon (1964) distinguishes between three possible outcomes of continual migrant-native interaction: (1) assimilation of immigrants to natives; (2) mutual assimilation of immigrants and natives; and (3) a pluralistic society in which ethnic boundaries persist. Still, Gordon as well as Park and Burgess point to assimilation of immigrants to natives as the most likely outcome, as they consider it a mandatory step toward upward social mobility for migrants. Hence, the authors assume migrants to have strong incentives and preferences for assimilation. This assumption is deeply rooted in the research context of Park, Burgess, and Gordon, who studied immigration to American cities in the 1960s, when immigrants mostly arrived from rural, middle-class areas across Europe (Hans, 2016). However, within this context, the authors do not discuss differences in the experiences of immigrant women and men.

In the 1960s, Classic Assimilation Theory started to face criticism (Hoesch, 2018). As immigrants increasingly arrived in the United States from Asia and South America, rather than middle-class Europe, researchers started to observe new patterns in immigrant life. One key observation was that most immigrants no longer assimilated to mainstream society but rather to the marginalized, lower social class resident in America's urban centers (Gans, 1992; Glazer & Moynihan, 1970; Kalter, 2008; Portes & Zhou, 1993; Zhou, 1997). Based on this observation, Portes & Zhou (1993) put forward Segmented Assimilation Theory. Crucially, Segmented differs from Classic Assimilation Theory in seeing assimilation to the mainstream society as

the final destination for all immigrants. Instead, Portes & Zhou (1993) outline that migrants can also experience 'downward assimilation' or 'selective assimilation' through which migrants preserve strong links to ethnic communities for insurance against assimilating downwardly. Based on their observation of migration to the United States at the time, Portes & Zhou (1993) conclude downward assimilation is the most likely outcome for future immigrants.

In contrast, New Assimilation Theory, developed by Alba & Nee (1997), continues to argue that assimilation to mainstream society is the dominant immigrant experience. Specifically, Alba & Nee (1997) disagree with Portes & Zhou (1993) in assuming that the economic, political, and societal conditions observed by them at one point in time will eternally prevail and make downward assimilation the unrivalled immigrant experience. Rather, Alba & Nee (1997) point to societal dynamics, such as demographic change, that will shape society over time, also affecting the ability and likelihood of migrants to assimilate one way or another. Furthermore, Alba & Nee (1997) first conceptualize native societies as dynamic rather than static social entities. Specifically, the authors point out that while immigrants can fully assimilate to natives (Boundary Crossing), characteristics that were formerly considered characteristic of ethnic minorities can also enter native culture (Boundary Shifting) or lose their relevance for ethnic differentiation (Boundary Blurring). Like Portes & Zhou (1993), Alba & Nee (1997) are silent on whether these insights apply equally to immigrant women and men.

In the German sociological tradition, Hartmut Esser is among the first to develop theories about immigrant life (Esser, 1980, 2001, 2006). Specifically, based on ideas of Rational Choice Theory, he extends the previously depicted theories in two ways. First, Esser (2001) links migrants' behaviors to rational reasoning and, thus, to Action Theory (Parsons, 1951). Hence, Esser (2001) argues that migrants face a choice about their ways of life and make their decisions based on rational calculation, by weighing expected benefits against expected costs. Expected benefits can, for instance, be related to earnings or social acceptance, costs can be financial, social, or emotional. Thus, in contrast to previous theories, Esser (2001) sees

migrants' lives as entirely guided by their goal-oriented actions rather than their origin or receiving context. Still, Esser (2001), like authors before him, remains silent on how gender interplays with his conclusions. Second, by introducing rational choice to assimilation theory, Esser (2001) accounts for situations in which migrants decide against assimilating to natives, thus broadening the concept of assimilation to integration. As alternatives to assimilation, Esser (2001) points to three potential outcomes: multiple integration, segmentation, and marginalization. In case of multiple integration, migrants are socially integrated into both native society and their source society. According to Esser (2001), being integrated in multiple societies is socially and cognitively challenging for any individual and, thus, unlikely.[3] If migrants, by contrast, decide against assimilating to natives, they are either segmented,[4] in case they are integrated in their ethnic society only, or marginalized, in case they are integrated in neither society. In these latter cases, Esser (2001) hypothesizes that ethnic conflict is likely to arise, leading him to think of assimilation as the most favorable outcome.

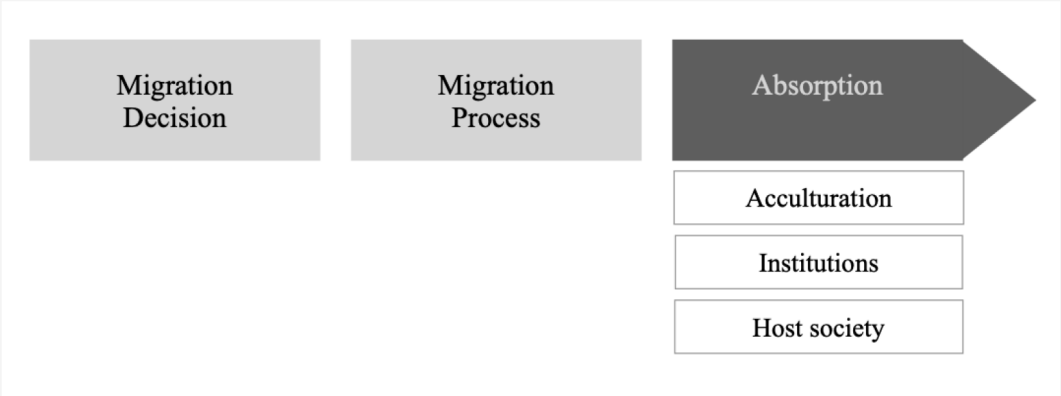
A common feature of the aforementioned theories is that they consider migrants' lives solely after migration. Although these formulations are greatly influenced by observations of the origins of migrant streams (see Classic, Segmented, and New Assimilation Theory), they neglect immigrants' life history and the pre-conditions of their migration on a personal, individual level. Yet, one key insight from life course research is that prior life history drives later life outcomes, such as the ability to, and the success in, integrating into a society. Accordingly, individuals' lives should be considered from childhood to understand their later experiences (Elder et al., 2003; Meyer & Rowan, 1977).

[3] In contrast, theories of Transnationalism maintain that migration is no longer a process under which all connections to the source society are cut. Rather, now migration is frequently temporary and circular (Dustmann, 1999). Second, new technologies allow for direct communication with family abroad (Merisalo & Jauhiainen, 2020). Thus, according to this view, immigrants usually live in transnational spaces. However, critics of this view point out that it is merely descriptive and does not explain migrant integration (Hans, 2016).

[4] In theories of Ethnic Pluralism or Multiculturalism, immigrants' and natives' coexistence is considered desirable. Critiques of these lines of thought center around its normative view on ideal migrant integration (Hans, 2016).

In line with this insight, Shmuel Eisenstadt models migration in three stages (see Figure 1). The first stage in Eisenstadt's (1954) model is the migration decision.[5] In this stage, migrants are still in their home countries but dissatisfied with their living conditions. This dissatisfaction may, for instance, be due to limited personal freedom or moderate vocational success. Migrants then decide to leave because they expect to eliminate the grounds for their dissatisfaction and improve their life quality elsewhere. In the second stage of Eisenstadt's (1954) model, migrants arrive in host countries. Eisenstadt (1954) considers this journey as physically and psychologically challenging: migrants have left their families and friends behind only to find themselves in a new social environment whose traditions and culture potentially differ greatly from their past frame of reference. When migrants become aware of these differences, a process of 'de-socialization' begins which causes migrants to realize that parts of their knowledge and skills are less relevant for people in their host society than their source society. For instance, a German emigrant's mother tongue will be less useful in Australia than in Austria. Such realizations motivate the third stage in Eisenstadt's (1954) model, the stage of absorption.

Figure 1. Assimilation theory according to Eisenstadt (1954)



In this third stage, migrants 're-socialize' by assimilating to the native society's social and cultural systems. Hence, Eisenstadt (1954) continues the tradition of assimilation theory,

[5] By contrast, life course research would advocate modeling individuals' lives in even greater episodes, spanning from early youth to old age (Elder et al., 2003; Meyer & Rowan, 1977). To my best knowledge, this insight is not yet integrated into migration or integration research.

established by Classic, Segmented, and New Assimilation Theory, and also does not discuss how the migration stages might differ for immigrant women and men.

Still, Eisenstadt's view of the migration process allows for assessing migrants' experiences after immigration in interaction with their prior lives, which is in line with insights from life course research. Still, he also assumes that migrants assimilate to their host society. This is a deterministic view of post-immigration life that Esser's integration theory softens. Therefore, this dissertation takes Eisenstadt's (1954) model as its basis, but rejects assimilation, as first depicted by Classic, Segmented, and New Assimilation Theory, and accepts integration as the ultimate outcome.

Domains of Immigrant Integration

Eisenstadt (1954) also outlines domains of immigrant life. According to his model, migrant absorption entails three distinct domains: acculturation, institutions, and relations to the host society (see Figure 1). First, migrants acculturate by adopting behavioral patterns of the native society, such as learning the host country's language. Second, Eisenstadt (1954) expects migrants to assimilate to host country institutions, such as the economy. Third, with respect to relations with the host society, Eisenstadt (1954) points out that immigrants and natives will need to adjust their expectations toward each other. Whereas migrants might need to adapt in more domains than they had initially anticipated, the host society might realize that some of its expectations for migrants are unrealistic.

Later theories refine Eisenstadt's (1954) domains by disaggregating them. According to Gordon (1964), there are seven life domains in which migrant assimilation is relevant and visible. Among these are: (1) acculturation, meaning the adaption of immigrants to behaviors of the native society, such as its language or religiosity; (2) structural assimilation, meaning migrants' integration into native groups and institutions; (3) interethnic unions; (4) emotional assimilation, meaning the development of a sense of belonging to the host country; (5) public

assimilation, meaning the integration of immigrants into public life, for instance, into political institutions; and, finally, (6) stereotypes; and (7) discrimination, referring to host societies' acceptance of migrants. Gordon (1964) assumes that migrants can independently advance in any of these domains at any time, yet he expects acculturation to take place first. Nevertheless, he considers "[s]tructural assimilation, rather than acculturation […] to be the keystone of the arch of assimilation" (Gordon, 1964: 81).

Esser (2001) outlines four domains of integration: cultural, structural, social, and emotional integration. He considers cultural integration the foundation of migrant integration. Esser's (2001) conceptualization of cultural integration is in line Eisenstadt's (1954) and Gordon's (1964) definition of acculturation: migrants are thought to, crucially, learn the host country's language and to follow in its traditions and customs. Furthermore, Esser's (2001) structural integration is comparable to Eisenstadt's (1954) argument on migrants' integration into institutions as well as Gordon's (1964) definition of structural assimilation. Accordingly, this domain brings migrants' integration into the educational system and the labor market into focus. Moreover, social integration subsumes all interactions between natives and immigrants, including friendships, romantic relationships, as well as contacts with native colleagues and neighbors. Finally, Esser (2001) considers migrants emotionally integrated once they have accepted native institutions and have further developed a sense of belonging to the native society. According to Esser (2001), while advances in any of these domains positively affect other integrational efforts, cultural integration is the most crucial domain.

In line with Gordon's (1964) view on the relative significance of domains of immigrant life, this dissertation focuses on migrants' structural integration into the labor market. More precisely, it considers migrants' employment and hours worked. Being employed has far-reaching consequences for any individual: first, employment generates income, allowing for independence, autonomy, and winning social recognition from others (Seebaß & Siegert, 2011). It can further be meaningful as it imposes a stable structure on everyday life and is directly

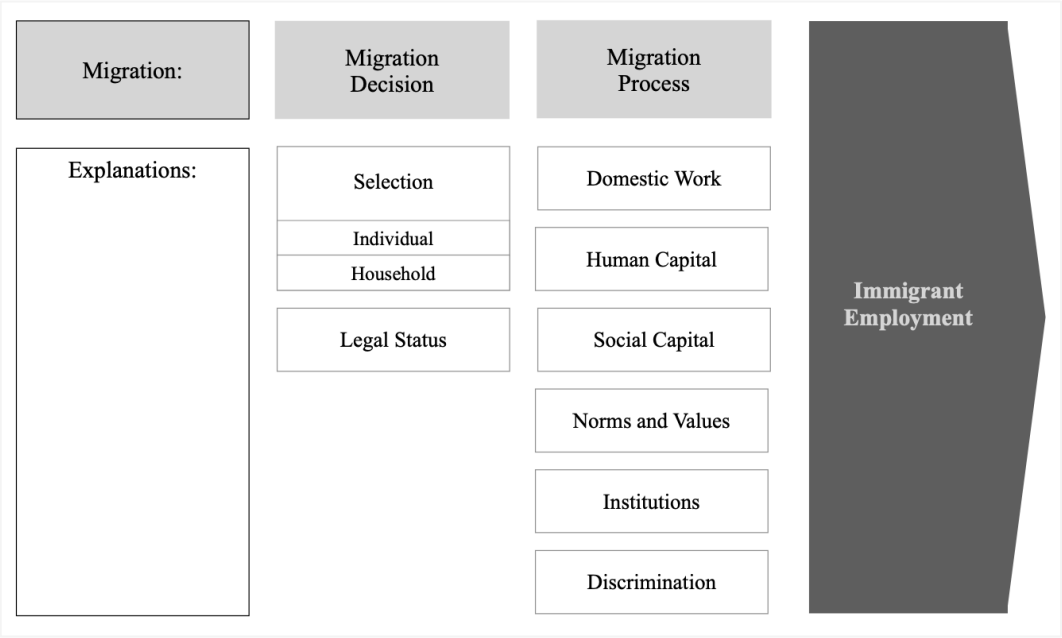
related to individuals' self-esteem. Employment is also closely intertwined with the receipt and amount of social welfare in case of unemployment or retirement (Ludwig-Mayerhofer, 2012). For immigrants, in particular, employment is vital as it is often a prerequisite to their residence permits and further beneficially affects other domains of their integration, such as language acquisition (Ager & Strang, 2008). Further, migrants' employment is crucial for societies' cohesion as it is associated with natives' attitudes toward immigrants (Czymara & Schmidt-Catran, 2017; OECD, 2005). Hence, this dissertation focuses on a key aspect of immigrant life.

Determinants of Immigrant Employment

Empirical evidence shows that immigrants are severely disadvantaged on the labor market: compared to natives, not only are immigrants are less likely to be employed, but they work fewer hours, have less prestigious occupations, and earn less (see, for example, Bevelander, 1999; Chiswick, 1978; Constant & Massey, 2003; Dustmann & Fabbri, 2005; Kogan, 2004). For instance, in Germany, eight percent of immigrants, but only four percent of natives are unemployed in 2013 (Salikutluk, Giesecke, & Kroh, 2016). However, with more time spent in host countries, immigrants catch up. For instance, in the United States, the immigrant-native earnings gap closes by ten to fifteen percent twenty years after migration (Chiswick, 1978; Lubotsky, 2011). These patterns also appear, to different degrees, in other countries, like the United Kingdom and Sweden (Bevelander, 1999; Dustmann & Fabbri, 2005).

Studies on immigrant employment seek to understand the underlying reasons for these patterns. In general, the literature hypothesizes migrants' disadvantages on the labor market to be rooted in a range of factors that are inherent in the migration experience. This hypothesis is, however, not based on a unified theory about immigrant employment. Rather, researchers apply various theories that were initially formulated to understand native experiences to immigrants, then further account for the specificities of migration. Figure 2 summarizes the determinants of immigrant employment and assigns them to Eisenstadt's migration stages.

Figure 2. Determinants of immigrant employment



In Eisenstadt's (1954) model, migration starts with the migration decision. Following Eisenstadt (1954), the decision to migrate is motivated by individuals' dissatisfaction. He states that those who are, for instance, dissatisfied with their personal freedom are more likely to migrate compared to those who are content. This line of argumentation hints at the common assumption that immigrants are not a random sample of their source societies but rather are a highly selective group of individuals in terms of their observable as well as unobservable characteristics (Borjas, 1987, 1991). In economic theory, this notion is formalized using Rational Choice and Human Capital Theory (Sjaastad, 1962). Thus, migrants are thought to make their decisions by weighing expected benefits against expected costs of migration. As migrants reach a different conclusion than non-migrants, the two groups are hypothesized to fundamentally differ. For instance, Chiswick (1999) argues that migrants are positively self-selected since they are willing to shoulder the costs of migration in mere expectation of future benefits. Such selection dynamics are assumed to matter for post-immigration employment since immigrants' personal characteristics as well as their previous social position in society should be informative for their future ability to successfully integrate (Borjas, 1987, 1991).

However, the decision to migrate is not always taken by individuals. Instead, individuals frequently migrate as family units, which leads researchers to hypothesize that household rather than individual considerations are relevant in migration decisions (DaVanzo, 1976; Long, 1974; Sandell, 1977). Ascribed to Rational Choice, Human Capital, and Bargaining Theory, this rationale was first formally introduced to migration research by Mincer (1978) in Tied Migration Theory. The Tied Migration Theory states that couples take migration decisions in an effort to maximize their joint welfare. According to Mincer, couples' joint welfare is calculated by adding together both partners' individual welfare functions. Thus, in Mincer's view of the migration decision, migrants do not have to individually gain from migration to decide for it, but rather as a family unit. Accordingly, if the expected gains from migration of one partner exceed the other partner's expected losses in absolute terms, couples' joint welfare will be positive and, therefore, they will decide for migration. Still, the partner who expects to lose from migration – that is, in Mincer's terminology, the so-called tied mover – will end up in a labor market with potentially little use for his or her skills (Mincer, 1978). Although Mincer only refers to ideas of rational choice in his model, applying Bargaining Theory would lead to similar conclusions. Bargaining Theory states that the decision of partners with heterogenous interests will reflect the will of the partner with more bargaining power derived from economic resources and their value in the event of separation or non-cooperation (Blood & Wolfe, 1960; Lundberg & Pollak, 1993). Thus, if individuals with more resources decide for migration, their partners might again end up in a labor market with little opportunities for themselves.

As these previous remarks illustrate, the decision to migrate implicitly entails the reason for migration: some migrants wish to work abroad, others want to accompany a family member or study abroad. Based on these motives, migrants apply for residence permits, for instance, for an employment or family reunification visa. Residence permits are associated with diverse rights and obligations, such as the right to claim citizenship, the right to receive social benefits, and the right or obligation to be employed (Kreisberg, 2019; Luik, Emilsson, & Bevelander,

2018). Crucially, the rights of migrants are typically limited compared to those residents who hold citizenship, hindering vocational success (Hainmueller, Hangartner, & Ward, 2019). Thus, this determinant of immigrant employment is not linked to a general theory but is rather inspired by an aspect inherent in the migration experience.

Actual migration, the second phase of Eisenstadt's (1954) model, also variously impacts migrants' lives (see Figure 2). First, migration is typically accompanied by additional domestic tasks: migrants need to move their belongings, furnish a new home, and potentially organize childcare for their children. Routine domestic responsibilities, like grocery shopping or running errands, can further take up more time than in migrants' countries of origin given the lack of language skills and institutional knowledge (Magdol, 2002). Together, these dynamics can limit immigrants' ability to immediately fully engage in the labor market (Blood & Wolfe, 1960). Again, this rationale is inherent in the migration experience rather than a unified theory.

Furthermore, Human Capital Theory (Becker, 1962) suggests that additional schooling, including on-the-job training and job experience (Chiswick & Miller, 2009), is rewarded on the labor market (Akresh, 2007). However, when immigrants enter another country, the value of their human capital depreciates. This is for three reasons. First, human capital that is specific to migrants' source countries, such as their language skills, is not necessarily relevant for the receiving context (Damelang & Abraham, 2016; Friedberg, 2000). Second, Credential Theory argues that employers use vocational certificates as productivity signals (Bills, 2003). However, employers in host countries will usually be unfamiliar with the quality of degrees obtained abroad and, thus, might be hesitant to hire migrant workers (Akresh, 2007). Finally, immigrants might be well educated compared to their source societies but poorly educated when compared to the native society (Kanas & Van Tubergen, 2009; Kogan, 2004; Spörlein, Kristen, Schmidt, & Welker, 2020), keeping them from actively competing with natives. Together, these dynamics in migrants' human capital can hinder their employment.

When individuals migrate, they also leave family and friends behind (Eisenstadt, 1954). However, Social Capital Theory states that social networks are crucial for vocational success as they may transfer social capital – that is, resources that can help to increase income, occupational prestige, and wealth (Aguilera & Massey, 2003; Bourdieu, 1986; Coleman, 1988). Specifically, such resources are especially useful during job search as they may provide job-related information, including not just where to look for jobs and how to present oneself but also may offer direct referrals. Immigrants frequently lack such useful contacts upon their arrival and only manage to establish them over time (Aguilera, 2002; Aguilera & Massey, 2003). In contrast, natives can ask their family and friends for help and job-related advice.

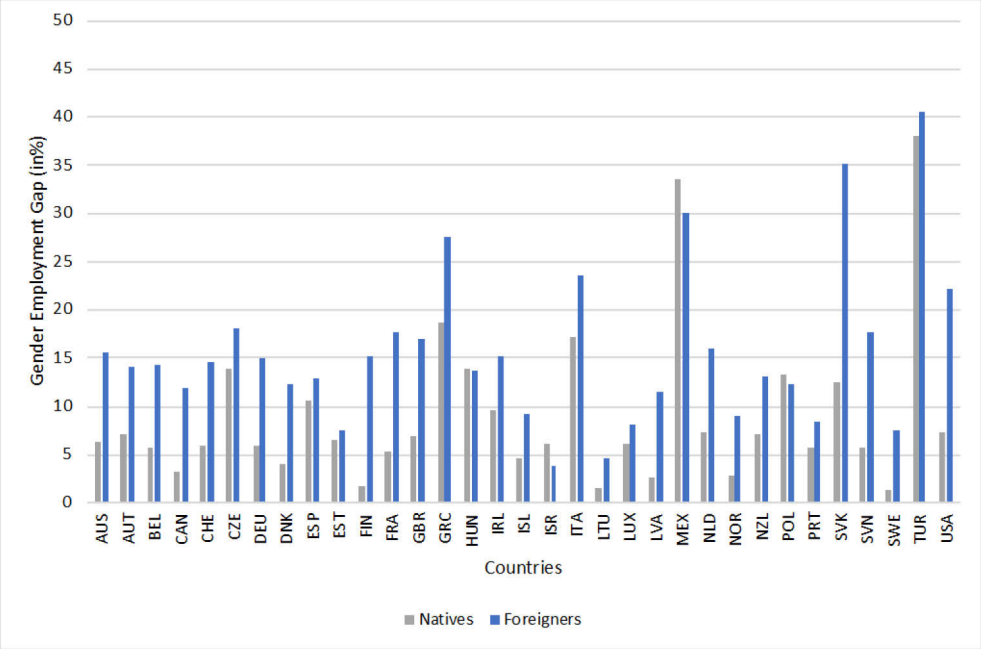
Migration does not just deprive migrants of their social contacts, it also exposes them to a new cultural environment, whose norms and values, work and gender attitudes, religious practices, and other customs may differ from where they come from. This exposure may cause an attitude and behavior change in immigrants, ultimately also translating into their employment decisions (Reimers, 1985). However, the direction of this effect is theoretically contested: on the one hand, Reimers (1985) argues that observing the host society will incentivize migrants to adopt similar behavioral patterns. Yet, on the other hand, feelings of foreignness and exclusion can also cause the opposite and lead migrants to socialize in ethnic enclaves and follow their behavioral patterns (Parrado & Flippen, 2005). Additionally, migrants also face new institutions upon immigration. These institutions may set different incentives to work, for instance, when considering the tax system (Esping-Anderson, 1990; Giesecke, 2009; Van Tubergen, Maas, & Flap, 2004). Finally, Discrimination Theories argue that migrants may be discriminated against when employers decide to actively exclude them from application processes due to their origin (Kingston, McGinnity, & O'Connell, 2015).

Although this section discusses each determinant of immigrant employment separately, they certainly interact in an immigrant's life. Typically, migrants will go through multiple processes, which will ultimately and uniquely determine their employment experience.

Gender Differences in Immigrant Employment

Immigrants' experiences in host country labor markets further vary by gender. Figure 3 shows the gender employment gap for natives and foreign-born residents across the OECD. For Germany, the gender employment gap is around 5% among natives but around 15% among immigrants. Similar trends show across the OECD, the only exceptions being Israel, Mexico, and Poland (see Figure 3). This empirical pattern is further confirmed by empirical studies across time and geographic space (Ala-Mantila & Fleischmann, 2018; Boyd, 1984; Raijman & Semyonov, 1997; Salikutluk, Giesecke, & Kroh, 2020).

Figure 3. Gender employment gap by immigrant status in OECD region, 2018



Note: AUS = Australia, AUT = Austria, BEL = Belgium, CAN = Canada, CZE = Czech Republic, DEU = Germany, DNK = Denmark, ESP = Spain, EST = Estonia, FIN = Finland, FRA = France, GBR = Great Britain, GRC = Greece, HUN = Hungary, IRL = Ireland, ISL = Iceland, ISR = Israel, ITA = Italy, LTU = Lithuania, LUX = Luxembourg, LVA = Latvia, MEX = Mexico, NLD = Netherlands, NOR = Norway, NZL = New Zealand, POL = Poland, PRT = Portugal, SVK = Slovakia, SVN = Slovenia, SWE = Sweden, TUR = Turkey, USA = United States of America
Data Source: (OECD, 2020a, 2020b)

Boyd (1984) termed this empirical observation the 'double burden' of female immigrants – that is, the "double negative of being female and foreign-born" (Boyd 1984: 1091). Accordingly, Boyd (1984) presumes that female migrants experience the full disadvantage of both of their social identities; their gender and their immigration status. In the broader sociological literature, intersectionality is discussed as an alternative to this view. Intersectional approaches originate

from the studies of women of color and, specifically Black feminist theory (Browne & Misra, 2003; Greenman & Xie, 2008). When looking at immigrant women through the lens of intersectionality, their social identities cannot be understood in isolation from each other but are instead inseparably intertwined. Hence, the approach argues that being a female migrant is a unique experience that is neither comparable to being a woman nor an immigrant. The disadvantaged positions of migrants and women cannot, therefore, simply be added together to understand the experiences of immigrant women (Browne & Misra, 2003).

Hence, although these two theoretical notions disagree on how to conceptualize the disadvantages that immigrant women experience, they agree in seeing them as being rooted in immigrant women's two defining characteristics, namely their gender and immigration status. Taking this conclusion as given, this dissertation aims to elicit how the process of migration in itself contributes to immigrants' gendered experiences on the labor market. Therefore, this dissertation performs a gender analysis among the group of immigrants, analyzing features of migration and their potential contribution to gender employment gaps after migration.

However, assimilation and integration theories remain silent on issues of gender (see above). Migrants are instead seen as a largely homogenous group that can only differ in their preference structure, when thinking in Esser's (2001) theoretical framework. Certainly, theories purposefully reduce complexity, thus approximating a reality that is far more complex. Still, this dissertation argues that gender introduces unique dynamics into migration that ultimately result in divergent labor market outcomes for immigrant women and men. This argument is based on insights from theories explaining gender inequalities among natives in the labor market. The following section outlines these theories. As the following sections show, integrating gendered perspectives on employment into integration theory allows for addressing the following overarching research question: *Which factors determine the employment of immigrant women and men?*

Gender and Employment

This section presents an overview of theories about the employment of women and men. More commonly, this theoretical literature is used to explain the unequal division of domestic labor between women and men. However, the Time-Availability Approach states that time spent in paid work limits time spent in domestic work (Blood & Wolfe, 1960). Similarly, the opposite holds true. Accordingly, these two dimensions are closely connected and this section reverses the usual argumentative structure of the theories to explain employment rather than non-employment. Eventually, these insights are integrated into Eisenstadt's theory to explain how migration can be hypothesized to interact with them to cause differential employment experiences for migrant women and men.

In general, women around the world spend significantly more time in the domestic sphere than in the labor market (Coltrane, 2000). Thus, the division of labor is traditionally subject to extensive academic research. Specifically, several theoretical approaches seek to illuminate the underlying reasons for these empirical patterns. These approaches include Economic Perspectives and Bargaining, Gender Ideology and Construction, Discrimination, Institutions, as well as Feminist Theory. Their ideas are outlined in the following.

Economic Perspectives and Bargaining

Economic theory considers individuals' employment patterns to be the result of preferences, abilities, and choices (Achatz, 2005; Reskin, 1993). Specifically, Neoclassical Economic Theory argues that individuals wish to maximize their welfare. To this end, they base their employment decisions on cost-benefit analyses, by weighing necessary educational and time investments against expected vocational gains. This consideration may lead individuals to non-, part-time, or full-time employment. However, as in the context of migration decisions, Becker (1985, 2009) argues that individuals oftentimes do not independently maximize their welfare but instead jointly, together with their household members. Household welfare is maximized

by choosing an efficient division of labor. For instance, if one household member has comparatively higher earnings, it is efficient for him or her to spend more time in the labor market than in the domestic sphere. Hence, according to this view, relative productivities drive employment patterns. Yet, Becker (1985, 2009) assumes that as men usually have, for instance, a higher earnings potential than women, they are more likely to spend a large share of their time on the labor market, limiting the time and ability of women to spend time in paid employment.

However, Neoclassical Economic Theory is criticized for its assumptions. First, Hakim (1996, 2000) casts doubt on the assumption that all women have the same preferences and weigh paid and unpaid work equally. Instead, she assumes that women have different priorities in deciding between spending time in the labor market versus the home. Specifically, Hakim (1996, 2000) identifies three types of women – that is, home-centered women; adaptive, non-career-oriented women; and work-centered women – who make career decisions according to their type. For instance, home-centered women will choose working hours that allow them to dedicate relatively more time to their family. However, critics of Hakim's (1996, 2000) model state that such choices are not only based on preferences but are further guided by factors like working conditions and earnings (Achatz, 2005; Blackburn, Jarman, & Brooks, 2000).

Second, Becker's idea is criticized for assuming that household members have joint interests (Bielby & Bielby, 1992). Bargaining Theory relaxes this key assumption. Instead, Bargaining Theory models household decisions as negotiations between household members with heterogenous interests (Lundberg & Pollak, 1993). According to the theory, the bargaining result will reflect the will of the household member with the greatest barraging power, derived from economic resources, such as education or earnings. Such resources are valuable in the event of non-cooperation, divorce, or separation, thus providing an individual increased bargaining power. Given that paid work is usually considered desirable (Ludwig-Mayerhofer, 2012), while domestic work is often deemed undesirable (Coltrane, 2000) and given that men often have more resources than women, this can lead to gendered patterns in employment.

Gender Ideology and Construction

Arguments on Gender Ideology and Construction focus on normative ideas of gender as drivers of the employment of women and men (Coltrane, 2000). Early theories focus on Gender Ideology and its impact on individuals' way of life. According to Socialization Theory, children and adolescents observe their environments, thereby learning about, and subsequently imitating, behaviors, attitudes, and views. These early learnings are hypothesized to leave a permanent imprint on individuals' lives, guiding their later behavior (Bandura & Walters, 1977; Platt & Polavieja, 2016; Thornton, Alwin, & Camburn, 1983). Accordingly, Socialization Theory posits that the gender employment gap is rooted in gender-specific learnings acquired throughout childhood and adolescence (Achatz, 2005). Specifically, children might internalize gender conservative or egalitarian attitudes in their childhood and conform to these learnings in adulthood. However, studies point out that learnings from childhood and adolescence are not irreversible but can instead change over time (Perales, Lersch, & Baxter, 2019).

Second, more recently, ideas on Gender Construction are increasingly prominent in explaining divisions of labor. Specifically, the 'Doing Gender' approach of West & Zimmerman (1987) argues that individuals wish to appear as competent members of their sex category: women wish to emphasize their femininity, men their masculinity. Ultimately, this may lead women to do most homework in order to appear as caring wives, limiting their ability to be (full-time) employed. However, such dynamics do not only influence employees but also employers, who might enact their learnings in their hiring decisions as the next section shows.

Discrimination

Discrimination Theories are mostly used to explain why women and men work in different occupations and on different hierarchy levels (Achatz, 2005). Still, they are also relevant in explaining the intensive and extensive margins of women's and men's employment. Specifically, Discrimination Theories outline the possibility that employers discriminate

against applicants. The theories distinguish between two types of discrimination: first, Becker (1971) assumes that women and men are equally productive and, therefore, are perfect substitutes on the labor market (Achatz, 2005). Still, the theory presumes that employers, employees, or customers simply have a 'taste' for discrimination based on societal stereotypes. Hence, to explain employment gaps between women and men based on Becker's (1971) framework, employers have a 'taste' for men and against women.

Second, theories of statistical discrimination see gender as a productivity signal (Aigner & Cain, 1977; Arrow, 1971; Phelps, 1972). According to models of statistical discrimination, employers have little reliable information about applicants. Therefore, they rely on their visible characteristics to assess their productivity. Accordingly, this model explains employment by pointing to employers' beliefs about women. Employers' reluctance to hire women may, for instance, be rooted in presumed strength differences between men and women or in their worry that women will be frequently absent due to domestic responsibilities. Ultimately, these beliefs result in men being favored over women for any given position (Reskin & Hartmann, 1986). However, critiques of the statistical discrimination approach point out that employers do, in fact, gain substantial information about their applicants prior to their hiring decisions. CVs, letters of reference, and prior work experiences should give employers a stronger productivity signal than applicants' gender alone (Achatz, 2005).

Institutions

Furthermore, the employment decisions of women and men can be constrained and incentivized by institutions. Typically, institutions include state services and governmental policies, like childcare facilities, the tax system, and parental leave regulations (Coltrane, 2000). Such institutions can affect individuals' ability and wish to spend more or less time in paid employment (see, for instance, Fuwa & Cohen (2007)). However, further, institutions may also refer to services as is domestic help (Coltrane, 2000). Domestic help may lift the burden of

housework from women and men, thus freeing both for market work by outsourcing housework (Craig & Baxter, 2016). A similar argument can, for instance, also be made with regard to technological change and its effect on the amount of housework to be distributed (Bittman, Rice, & Wajcman, 2004). Hence, there are various ways in which institutions can intersect with individual decisions on relative time investments.

Socialist-Feminist Theory

Finally, Socialist-Feminist Theory argues that capitalist systems are characterized by patriarchal social structures that concern all life domains and allow men to exercise constant power and control over women (Achatz, 2005; Coltrane, 2000). This rationale is also applied to the labor market. As part of the Dual System Approach, Hartmann (1976) argues that men of all social classes have an interest in deterring women from assuring their own livelihood in order to preserve the prevailing division of labor in which women do most housework.

Yet, this approach is criticized for overestimating the possibilities of men to collectively and strategically plan the exclusion of women from the labor market. Not only does the approach further deny women any agency, it also denies any significance of institutions and norms for individuals' lives (Alvesson & Billing, 1997).

Overall, this section illustrates that there are several theories that hypothesize men and women to be employed to different degrees. However, these insights are not yet integrated in integration research. At the same time, the ideas outlined above cannot directly grasp the unique situation of immigrant women and men. International migration is a disruptive event that exposes individuals to an entirely new social, legal, cultural, and economic environment, leaving a permanent imprint on their lives. Therefore, these two strands of literature must be synthesized to be able to understand the differential experience of immigrant women and men. The following section presents this synthesis.

Migration, Gender, and Employment

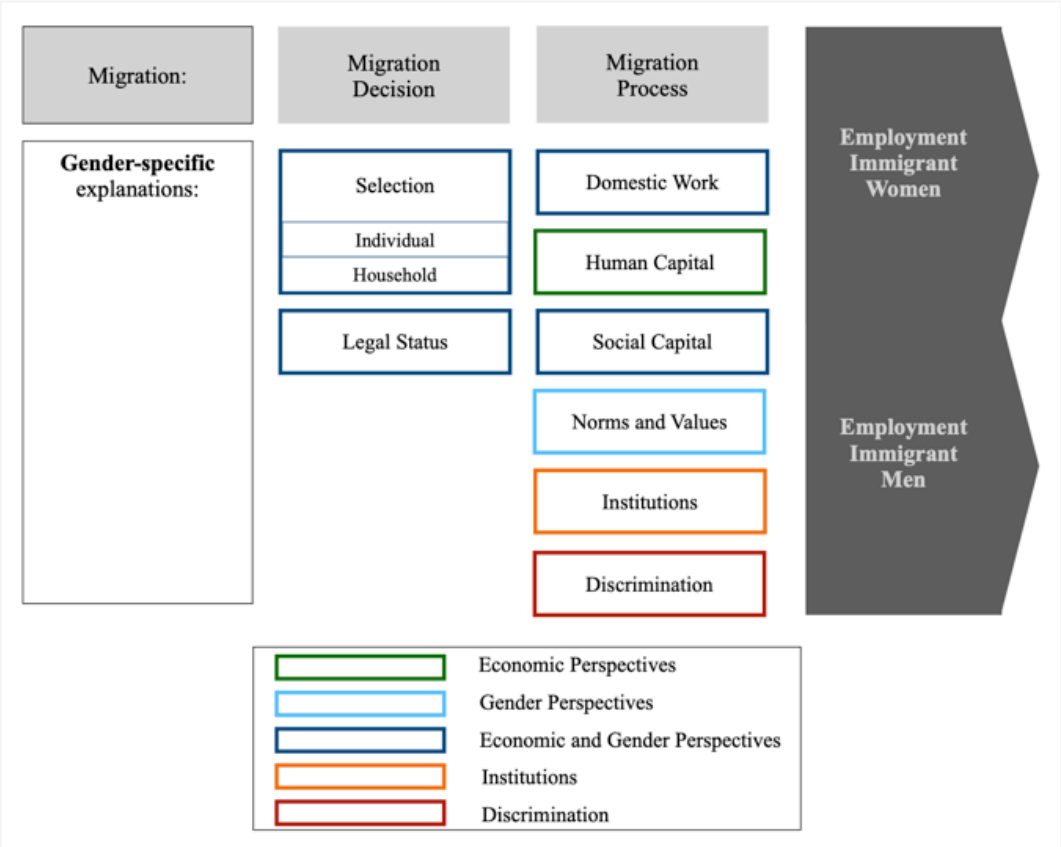
The goal of this section is to bridge the literatures on immigrant integration, on the one hand, and on gender and employment, on the other hand. Therefore, this section first integrates insights on gender and employment into Eisenstadt's (1954) theory. Second, it reviews existing empirical evidence on the employment of immigrant women and men.

A Synthesis of Theories

Integrating insights on gender and employment into Eisenstadt's (1954) theory uncovers multiple ways in which the employment trajectories of immigrant women and men can be expected to diverge due to immigration and its aftermath. Specifically, this section argues that gender employment gaps are reproduced and reinforced during the migration decision and process as these two migration stages interact with dynamics that lead to differential employment of women and men, in general and independent of migration.

Figure 4 summarizes this argument. Like Figure 2, Figure 4 displays Eisenstadt's (1954) theory together with determinants of immigrant employment. Yet, additionally, Figure 4 shows which theories on gender and employment can be expected to intersect with migration to produce gender-specific experiences that ultimately result in the unequal labor market position of immigrant women and men. The previous section identifies five theoretical explanations for the divergent employment experiences of women and men. These explanations include Economic Perspectives and Bargaining (short: Economic Perspectives), Gender Ideology and Construction (short: Gender Perspectives), Discrimination, Institutions, and Feminist Theory. Figure 4 integrates these explanations into the migration decision and process. Please note that Feminist Theory is not integrated as it argues that men of all social classes strategize to exclude women from the labor market. This should be true for men across countries and, thusly, will equally hold before and after migration. Still, Economic and Gender Perspectives, Institutions, and Discrimination can be expected to cause gender-specific migration experiences.

Figure 4. Engendering determinants of immigrant employment



In the first phase of Eisenstadt's (1954) model, the migration decision, Economic and Gender Perspectives can have a relevant impact on immigrants' experiences. First, selection may play an important role in explaining the employment of immigrant women and men. More precisely, it can be hypothesized that the considerations that bring women to decide for migration differ from the decision-making processes of immigrant men. These differences can be linked to mechanisms rooted in Neoclassical Economic Theory as well as in ideas on Gender Ideology and Construction. For instance, men, who frequently see themselves or are seen as the breadwinners of their families, may only decide for migration if they expect substantial gains in terms of vocational success for they fear not being able to send sufficient amounts of money home. Stereotypically, such considerations should be less prevalent among women (Cunningham, 2008; Johnson, 2015). Likewise, as the occupations that women and men follow are segregated (Bukodi & Paskov, 2020), their costs and benefits from migration might differ.

Yet, as already pointed out, men and women frequently migrate in family units, crucially linking their migration decisions to one another. The Tied Migration Theory states that this may cause some individuals to end up in labor markets with little use for their skills (Mincer, 1978). Based on insights from Economic and Gender Perspectives, it is conceivable that men will drive the migration decision more often than women. In fact, this is already pointed out by Mincer (1978) and is now referred to as the 'trailing wife' (Boyle, Zhiqiang, & Vernon, 2009). Accordingly, women can be hypothesized to be more likely to migrate into labor markets with little opportunities for themselves. Furthermore, for a woman to initiate a move against the will of her partner, she can be assumed to expect comparatively high returns from it in order for her partner to accept an unfavorable position on the labor market for himself. This argument is linked to insights from Gender Ideology and Construction along with the associated normative ideas of women and men (Bielby & Bielby, 1992; Shihadeh, 1991).

Finally, migration decisions are closely connected to migrants' motives and residence permits. If men are more likely to initiate migration than women, they will also be more likely to immigrate as economic immigrants. In contrast, women, as they are accompanying their partners, will more often immigrate as family migrants. Being a family migrant is often linked to fewer rights and resources compared to the status of an economic migrant (Kreisberg, 2019). For instance, in Germany, the employment of family migrants was linked to waiting periods of up to four years until 2001 (Lingl, 2017). Such employment bans and further restrictions in rights and resources can, in turn, adversely impact individuals' employment in the short- as well as long-term (Kreisberg, 2019; Marbach, Hainmueller, & Hangartner, 2018).

In the second phase of Eisenstadt's (1954) model, individuals migrate. In this stage of the migration process, Economic and Gender Perspectives, Institutions, and Discrimination can introduce unique dynamics into the experience of immigrant women and men. First, migration increases the amount of domestic work. Based on insights from Economic and Gender

Perspectives, it can be inferred that immigrant women are (mostly) responsible for managing these additional chores (Magdol, 2002), hindering their vocational integration.

Additionally, immigrant women's human capital may be more severely devalued over the course of migration. This is because women frequently pursue occupations that require a high amount of host country-specific skills. Teachers, nurses, and service workers need to be familiar with a country's language and customs to do their job. In contrast, these requirements are less prevalent in male-typed professions, like construction work (Raijman & Semyonov, 1997). However, the Family Investment Hypothesis, which is based on the Economic Perspective, argues that the depreciation of human capital has more damaging consequences for men as they generally have a higher earnings potential than women. Thus, according to the hypothesis, it is rational for families that women enter the low-skilled labor market immediately upon immigration to earn money for men's retraining in the host country (Baker & Benjamin, 1997). Once men have regained their human capital and have entered the labor market on their qualification level, wives are assumed to quit their "dead-end jobs" (Blau et al., 2003: 429).

Further, immigrants leave their social networks behind. This is true for women as well as men and, thus, should not introduce gender-specific dynamics to the immediate aftermath of migration. Yet, based on Economic and Gender Perspectives, it is conceivable that within couples, males migrate before their female partners. Thus, when women reunify with their partners, they might already have a social network to draw on, easing their labor market entry.

Yet, immigration to another country further exposes individuals to a new cultural environment. Based on insights on Gender Perspectives, this can be hypothesized to entail greater changes for women than for men. Specifically, the normative ideas of women around the globe differ substantially. In some countries, there is stigma attached to working women, in others the employment of women is considered highly desirable (Jayachandran, 2020). In contrast, the position of men and views on their employment around the globe are more

homogenous (Fernández, 2007). Accordingly, the change of the cultural environment can be expected to be, on average, more drastic for women than for men.

With immigration, the institutions that individuals confront change. This may cause significant changes for women. Specifically, the fundamental rights of women are restricted in some countries. For instance, around the world, women cannot necessarily get a job, open a bank account, register a business, or sign a contract in the same way that men typically can (World Bank, 2020). Further policies, like regulations related to parental leave, also vary greatly around the globe and affect both women and men.

Finally, Discrimination Theory suggests that immigrant women should be more severely discriminated against than immigrant men. Specifically, according to the theory, female migrants have two social characteristics that employers might discriminate against: their gender and their immigration status.

Empirical Evidence[6]

Table 1 summarizes the evidence on the employment of immigrant women and men. Overall, although most mechanisms have been considered at least once before, the evidence on immigrant women is still scare as most studies either exclusively focus on male immigrants or simply control for migrants' gender in their regression analyses without considering gender-specific dynamics in-depth (Boyd, 1984).[7]

First, to my best knowledge, only Polavieja et al. (2018) investigate whether immigrant women and men select differently into migration by separately comparing male and female migrants in host countries to non-migrants in source countries. The authors, considering

[6] In discussing empirical evidence on gender, immigration and employment, I do not account for evidence that is generated with respect to gender, race, and employment (see, for instance, Greenman & Xie (2008)). Being of a different race does not necessarily imply a migration status. Therefore, this literature is not fully informative of the immigration experience.

[7] An exception is the literature on women migrating to take up care-giving jobs (Buchan & Sochalski, 2004). However, this literature does not allow for general conclusions as it depicts one highly specialized sector, is limited to migration streams from and to certain countries, and is mostly concerned with describing the policy contexts.

migration to Europe, find that immigrant women from gender-traditional societies more often move for family than employment reasons. Further, in their study of migrants in Germany, Salikutluk et al. (2020) show that human capital differences between migrant men and women from Turkey and the former Soviet Union can partly explain the gap in employment. Although this result illustrates the different education levels of immigrant women and men, it is unclear whether these reflect the reality of source countries or, in fact, gender-specific selection. Still, Polavieja et al. (2018) provide evidence for gender-specific selection into migration.

Table 1. Evidence on determinants of employment of immigrant women and men

Theoretical Argument		**Evidence**	**Support for Theory**
Selection	Individual	Yes	Yes
	Household	No	
Legal status		Yes	Yes
Domestic Work		No	
Human Capital	Family Investment Hypothesis	Yes	No
	Other	No	
Social Networks		No	
Norms and Values	Country of Origin	Yes	Yes
	Societal Dynamics	Yes	
	Gender Attitudes	Yes	
	Family	Yes	
	Socialization	No	
Institutions		Yes	Unclear
Discrimination		Yes	No

Note: Blue marks the areas this dissertation provides evidence for.

Furthermore, Banerjee & Phan (2015) consider the effect of residence permits on the employment of immigrant women and men in Canada. The authors find that dependent applicants of both genders face employment disadvantages relative to principal applicants. Yet, since women are disproportionally represented in the group of dependent applicants, they bear most of these employment disadvantages. Cobb-Clark et al. (2005) draw similar conclusions for immigrants in Australia. Accordingly, evidence provided on immigrants' legal statuses is in line with the suggested theoretical mechanisms. However, it remains unclear whether selection is the driving force behind these effects or whether the restrictions that legal statuses entail inhibit the economic integration of dependent visa applicants.

Furthermore, Baker & Benjamin (1997) are the first to formally test the Family Investment Hypothesis. Based on their sample of immigrants in Canada, the authors find evidence for the hypothesis. Yet, since then, multiple studies have arrived at opposite conclusions, thus rejecting the notion of women as secondary workers (Adserà & Ferrer, 2014; Basilio, Bauer, & Sinning, 2009; Blau et al., 2003). In contrast, evidence on other mechanisms related to human capital and how it might differ between women and men is scare. Specifically, there is no evidence on the relative devaluation of human capital between women and men. Only Kogan (2012) notices that the efforts to get credentials recognized does not significantly differ between immigrant women and men in Germany. Therefore, it remains largely unclear to what extent the devaluation of human capital contributes to the differential employment experiences of immigrant women and men. The same is true for the effect of social networks.

To date, most evidence is on the influence of norms and values on the employment of immigrant women and men. However, norms and values are inherently difficult to measure. Therefore, studies take various approaches to grasp this concept. First, authors simply take immigrants' country of origin as a proxy for norms. Indeed, these studies find differences between countries (Boyd, 1984; Fleischmann & Höhne, 2013; Khoudja & Platt, 2018; Raijman & Semyonov, 1997; Rebhun, 2008). For instance, Raijman & Semyonov (1997) finds a 'triple burden' for immigrant women from less developed countries. Second, studies take societal indicators, such as female to male employment or secondary schooling in the source country, as measures of social norms. This reasoning is based on the so-called 'epidemiological approach' of Fernández & Fogli (2009), who argue that while institutions and laws are non-portable, norms are. Thus, studying societal indicators that are usually influenced by institutions, laws, and norms for immigrants allows the mechanisms behind these measures to be narrowed down to societal norms. Using this approach, studies find the employment of women to be related to these constructs, while men's employment is independent of them (Blau, Kahn, & Papps, 2011; Frank & Hou, 2015). This supports the notion that female migrants'

employment continues to be driven by societal norms, from which men can free themselves. While Frank & Hou (2015) find that norms become less important with time since immigration in Canada, Blau et al. (2011) reach the opposite conclusion for the United States, leaving it also empirically unclear how norms affect migrants over time. Furthermore, Wang (2019) shows that the employment of immigrant women is associated with their gender attitudes. Thus, female immigrants, who hold traditional rather than gender attitudes, are less likely to be employed in Great Britain. Finally, other authors look at the impact of partners on immigrant women's employment. The evidence is mixed with studies finding positive as well as negative associations (Ala-Mantila & Fleischmann, 2018; Brekke, 2013; Donato, Piya, & Jacobs, 2014; Khoudja & Fleischmann, 2017). Finally, Arcarons (2020) investigates the effect of mothers-in-laws on immigrant women's employment, finding strong links that suggest that immigrant women either select into relationships that will lead to employment patterns that reflect their wishes, or that these wishes come into existence with the relationship. Overall, the literature on norms and values suggests that there is a strong association supporting theoretical arguments. However, immigrants' childhood and youths as key phases of norm and value formation are not previously considered.

In contrast, there is still little evidence on institutions. Authors find that immigrant women in Mediterranean labor markets face lower disadvantages than in Western Europe (Ballarino & Panichella, 2018; Rendall, Tsang, Rubin, Rabinovich, & Janta, 2010). However, the studies are unable to determine whether selection or policies drive these findings.

Finally, evidence from experiments in which applications were sent to job postings with native and immigrant names in the Netherlands and Sweden show that immigrant men are more severely discriminated against than immigrant women (Andriessen, Nievers, Dagevos, & Faulk, 2012; Arai, Bursell, & Nekby, 2016; Blommaert et al., 2014; Bursell, 2014). This is in contrast to the effect direction suggested by the theoretical insights and is explained by the authors with stereotypes of men as being aggressive and impulsive.

This Dissertation: A Gendered Look at Immigrant Employment

Based on these insights from theory and empirical evidence on the employment of immigrant women and men, this dissertation asks three research questions in three papers:

1. **Paper I:** How do dynamics in couples' decision to migrate impact the employment of immigrant women and men? [8]
2. **Paper II:** How does migration impact the time spent on domestic work of immigrant women and men? [9]
3. **Paper III:** How does adolescent socialization impact the employment of immigrant women? [10]

As Table 1 shows, answering these three questions fills significant gaps in the literature and, therefore, substantially contributes to addressing the overarching question about those factors that drive female relative to male migrant employment. Specifically, answering these questions is particularly interesting as their effect is already explored for natives. It is shown that decision dynamics on internal relocations matter for individuals' employment, that domestic work distributions change when relocating internally, and that women's socialization context matters for their later employment. Thus, exploring these three mechanisms for migrants not only allows for gaining crucial new insights on immigrant women and men but also contextualizes and contrasts these findings with native experiences. Ultimately, this comparison allows for checking the viability of theories in light of a disruptive event like migration.

This dissertation answers these questions in the geographic context of Germany using data on first-generation immigrants from the German Socio-Economic Panel. The following two sections outline these two aspects of the dissertation.

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[8] Krieger, Magdalena (2020): Tied & Troubled: Revisiting Tied Immigration and Subsequent Employment. *Journal of Marriage and Family*, 82 (3), 934 - 952. doi: 10.1111/jomf.12620

[9] Krieger, Magdalena & Salikutluk, Zerrin: Migration and Dynamics in Women's and Men's Division of Domestic Work.

[10] Krieger, Magdalena (2020): Agents of Socialization and Female Migrants' Employment – The Influence of Mothers and the Country Context. *European Sociological Review*, published online. doi: 10.1093/esr/jcaa029

Immigration to Germany and the Welfare State

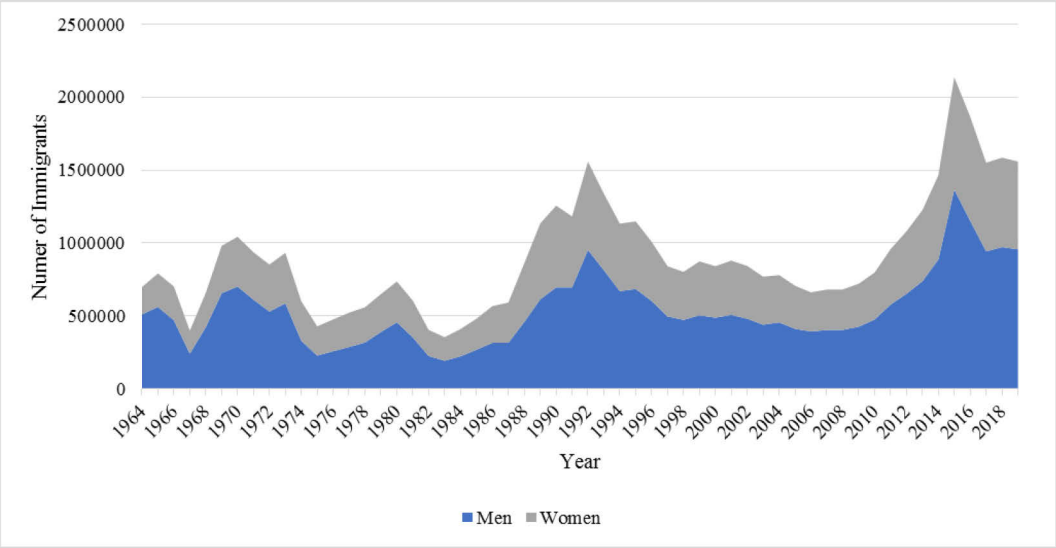
Large-scale immigration to Federal Republic of Germany began in the 1950s. By the midpoint of that decade it became apparent that the sharp economic upturn and resulting increase in labor demand that followed the Second World War could not be satisfied by native workers alone. In response, the government signed recruitment agreements with several countries; among them, Italy (in 1955), Spain (in 1960), Greece (in 1961), Turkey (in 1963), Morocco (in 1964), Portugal (in 1965), and Yugoslavia (in 1968). These recruitment agreements allowed companies to temporarily recruit workers from abroad. The associated residence and employment permits were generally limited to one year and had to be renewed thereafter. Recruits were commonly referred to as *guest workers*, emphasizing the intended short-term nature of their stay in Germany. Overall, around 14 million guest workers arrived in Germany between 1955 and 1973 (Lingl, 2017). Although men were overrepresented among them, from 1965 onward, a quarter of the recruits were female (Dorbritz et al., 2016).

While the intended temporary nature of the recruitment program still reflected the majority of migratory experiences to Germany in the 1960s, the number of immigrants and their periods of stay solidified in the 1970s. At that time, only 13.1% of guest workers used to return to their home countries. Consequently, family reunification, which was still rarely requested in the 1960s, increased in significance (Herbert, 2003). Given that most foreign recruits were male, this stream of family migrants was dominated by women. Figure 5 underlines this: from 1970 onward, around 40% of the immigrants to Germany were women. Yet, in light of the oil crisis (1973) and the ensuing economic downturn, the public viewed this growing number of immigrants negatively. In response, Germany imposed a recruitment ban in November 1973. Accordingly, applications for, and renewals of, employment permits required a thorough assessment of how the employment opportunities of native workers would be affected. Additionally, the fee that employers had to pay for recruiting from abroad was increased (Münz, Seifert, & Ulrich, 1999). However, citizens of the European community (EC: Belgium, France,

Italy, Luxembourg and the Netherlands) and Switzerland as well as their family members, who had been subject to free movement since 1968, were exempted from these new rules.

As intended, the recruitment ban caused a sudden drop in the number of immigrants from third countries. Figure 5 illustrates this. Nevertheless, the foreign resident population in Germany decreased only slightly until 1979 and increased significantly thereafter. This can be attributed to the fact that the recruitment ban reinforced the intentions to stay in Germany of those guest workers who already lived in Germany. Consequently, the number of family reunifications in Germany increased drastically (Herbert, 2003). Accordingly, female migrants accounted for around 50% of all immigrants in the 1980s (see Figure 5).

Figure 5. Immigration to Germany by gender, 1964 - 2019



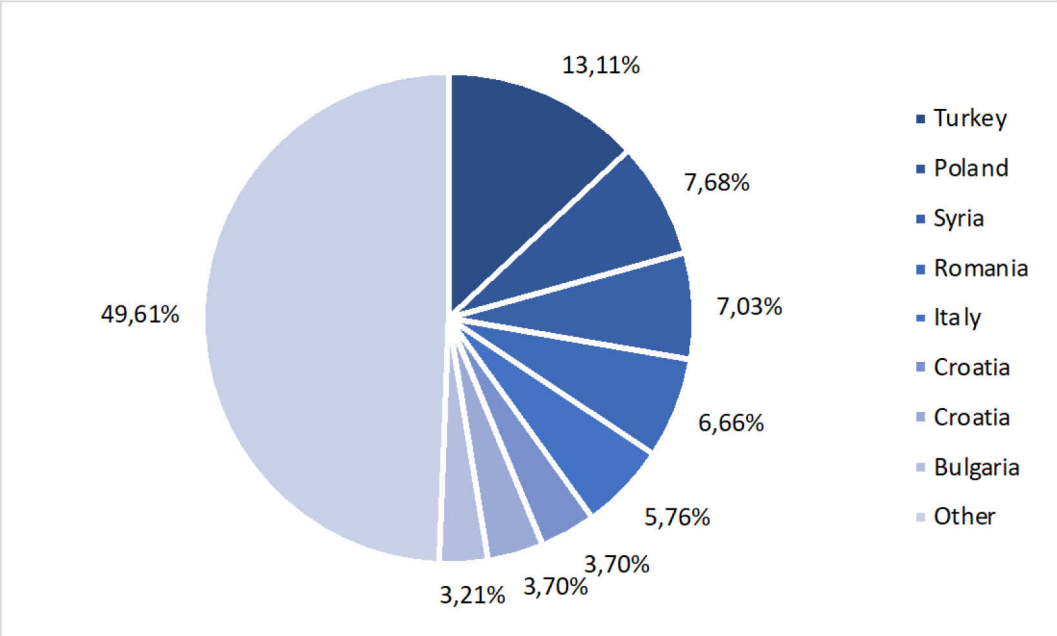
Note: This graph also considers refugee migration to Germany. However, refugees are generally not part of this dissertation's analyses and, therefore, are also not discussed in this section. Until 1989, statistics refer to West Germany only.
Data Source: (Statistisches Bundesamt, 2020)

In an effort to discourage family reunification, the government stopped granting employment permits to spouses who immigrated after 1974. A first relaxation of this regulation was implemented in 1978, when spouses were granted employment permits after permanent residence in Germany for at least five years. In subsequent years, this waiting period was first reduced to four years (in 1981) and then to one year (in 2000). In 2004, the waiting period was fully abolished and substituted for a new rule according to which a family migrant was allowed

to work when his or her spouse did. From 2013 onward, the employment permits of family reunification migrants were no longer restricted.

In the 1990s, the immigration of guest workers and their families became less prevalent and, instead, the arrival of ethnic German repatriates began to dominate migration flows into Germany. Ethnic German repatriates are immigrants of German descent, who used to live in the former Eastern Bloc as ethnic minorities. Between 1988 and 1996, 2.3 million immigrated to Germany, with around 45% being women (Münz et al., 1999). Under the Federal Expellees Act, they were granted citizenship and integrative assistance including language classes and lessons on German culture, history, and law (Kalter & Kogan, 2014). This integrative support was institutionalized for other migrant groups in 2005 (Schneider, 2007).

Figure 6. Foreign population in Germany by country of origin in percent, 2019



Note: Category "other" includes all foreigners whose country of origin makes up less than 3% of foreigners in Germany. Syria is a prominent origin country in Germany due to increased refugee migration between 2013 and 2018. However, refugees are not part of this dissertation's analyses and, therefore, are also not discussed in this section.
Data Source: (Statistisches Bundesamt, 2018)

Finally, more recent years of German immigration history are marked by the immigration of European Union citizens. Among other things, this can be linked to the EU Eastern Enlargement

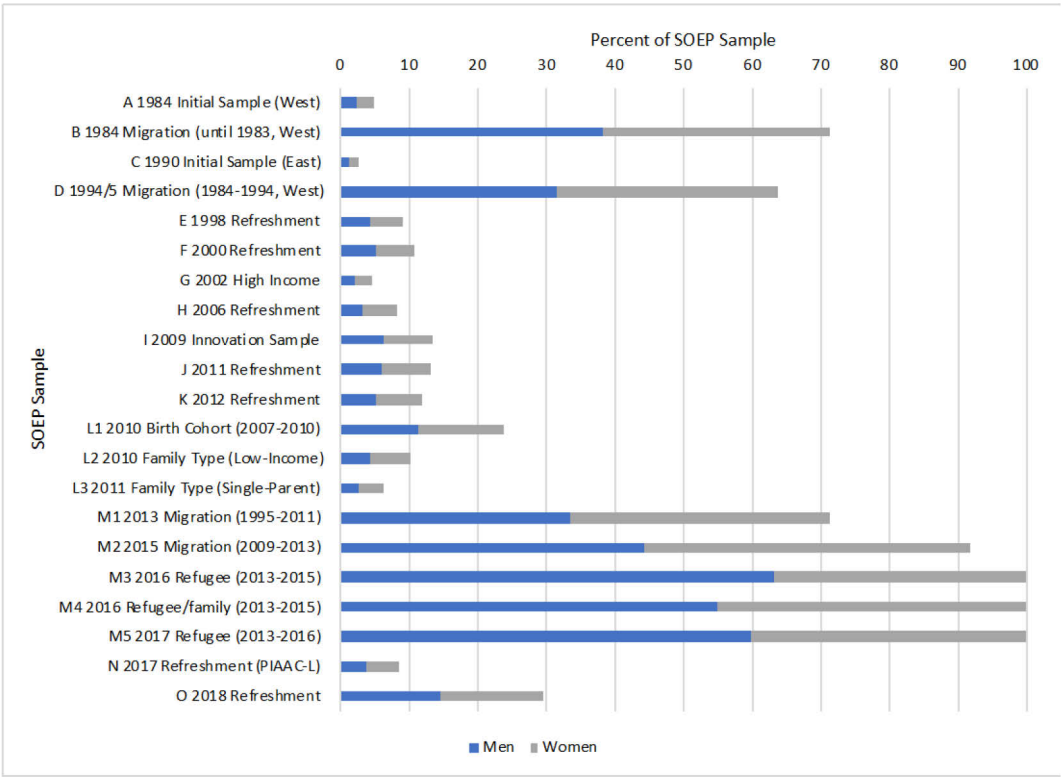
in 2004 (Statistisches Bundesamt, 2018). Women account for 40% of this immigrant inflow. Based on this immigration history, Germany's foreign population in 2020 is composed as shown in Figure 6. Furthermore, 46% of all foreigners in Germany are women.

In Germany, migrants enter a conservative, family-oriented welfare state. Female employment in Germany has been rising steadily, from 60% in 2000 to 75% in 2018 (OECD, 2020b). Still, traditional labor divisions remain prevalent with 37% of employed women working part-time in 2018 (OECD, 2020c). Further, as in other countries, women in Germany invest significantly more time in domestic work than men (Samtleben, 2019). This traditional division of labor is incentivized by Germany's welfare state. Among other things, it is characterized by a low supply of public childcare, limited full-day care options for children, and tax incentives for couples in which one partner works reduced hours (Giesecke, 2009; Hofäcker, Stoilova, & Riebling, 2013). Further, Germany's unadjusted pay gap of 21% in 2018 is high in comparison (Eurostat, 2019). Together, these institutional aspects can discourage (migrant) women from pursuing (full–time) employment. Still, being employed is generally desirable for migrants as it is closely linked to receiving residence permits and benefits.

Immigrants in the German Socio-Economic Panel

To analyze the labor market experiences of immigrants in Germany, this dissertation uses data from the German Socio-Economic Panel (SOEP). The SOEP is a general population household panel that has been carried out on an annual basis since 1984. It asks its respondents to provide details on a wide range of topics, including their employment, education, children, and health (Goebel et al., 2019). Interviews in the SOEP are mostly held face-to-face and the response rate currently is 89% for individual questionnaires, which are administered to all household members aged 17 and above (SOEP Group, 2020).

Figure 7. First-generation immigrants across SOEP samples in percent, 2019



Data Source: SOEP v.35, own calculations.

Since it is the SOEP's mission to provide representative data on households in Germany, immigrants are naturally part of every SOEP sample. Figure 7 illustrates this. In every SOEP sample, at least 5% of the respondents are first-generation immigrants. Additionally, there are samples – that is, Samples B, D, M1, M2, M3, M4, and M5 – that specifically sampled immigrants and, therefore, include a disproportional number of migrant respondents. While Sample B aimed at sampling former guest workers, Sample D focused on migrants to West Germany who arrived between 1984 and 1995. Samples M1 and M2, added in 2013 and 2015, respectively, aim to grasp more recent immigration to Germany. More precisely, the samples focus on first-generation migrants who immigrated between 1995 and 2013, as well as second-generation immigrants in Germany. As can further be seen in Figure 7, immigrant women and men are almost equally represented in every SOEP sample. Finally, questionnaires are distributed in English, German, Russian, Turkish, Romanian, and Polish (Kroh, Kühne, Goebel, & Preu, 2015; Kroh, Kühne, Siegers, & Belcheva, 2018; Kühne & Kroh, 2017).

This dissertation mostly relies on data from Samples M1 and M2 since the SOEP's migrant-specific questionnaire content was significantly extended with these samples. Specifically, using data from Samples M1 and M2 allows for analyzing specific aspects of immigrant life, such as the decision to migrate and pre-migration time use. By contrast, Samples M3 to M5, which cover refugee migration to Germany, are excluded from the analyses since refugees' employment is known to differ from the experiences of migrants (Bevelander, 2011).

Structure of this Dissertation

The remainder of this dissertation is structured as follows: the next three chapters present the three empirical papers of this dissertation. The final chapter concludes by interpreting the findings with respect to theory development and future research avenues.

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CHAPTER 2

TIED AND TROUBLED: REVISITING TIED MIGRATION AND SUBSEQUENT EMPLOYMENT

Abstract

Objective: This paper looks at couples' migration decision making processes and their gender-specific employment consequences after migration to Germany. Background: International migration has evolved into a common experience for couples around the globe. Previous research has focused on the internal migration of couples and families. This article is the first to consider couples' international migration decisions drawing on the theoretical concepts of Mincer's tied migration theory and gender role beliefs. Method: Using data from the German Socio-Economic Panel Survey, this study explores the labor market integration of tied, lead, and equal immigrants. Labor market integration is measured in terms of the probability to be employed and the time to first employment in Germany. The author investigates these outcomes via differences-in-differences and survival analysis regression techniques. Results: Male tied, relative to lead and equal immigrants, are significantly less likely to be employed shortly after migration as well as in the long run. By contrast, no significant differences in the employment probability showed between female tied migrants and their reference groups after migration. Yet, lead migrants of both genders enter the German labor market earlier than tied as well as equal movers. Conclusion: This study provides first evidence on the significance of circumstances in couples' migration decision making for (gender-specific) returns to migration and in that highlights key aspects of international couple migration.

This is the pre-peer reviewed version of the following article: Krieger, M. (2020). Tied and Troubled: Tied Migration and Subsequent Employment. Journal of Marriage and Family, 82(3), 934-952, which has been published in final form https://doi.org/10.1111/jomf.12620.

Acknowledgements: I thank Martin Kroh, Lea-Maria Löbel, Nicolas Legewie, Jannes Jacobsen, Janina Steinert, Ana Hernandez-Garcia, Luise Burkhardt, Katja Schmidt, and other colleagues at the German Socio-Economic Panel for helpful comments on earlier versions of this article.

Migration and relocation are ways to improve one's living conditions. Taking advantage of such life-changing opportunities is relatively easy for singles but has proven difficult for couples and especially so in light of women's increasing labor market participation (Abraham, Auspurg, & Hinz, 2010; McHugh, Gober, & Reid, 1990). In the context of multi-person households, it thus becomes a challenge to find a new place of residence that improves the living conditions of every household member alike.

Theoretically, this issue was first highlighted within Mincer's (1978) tied migration theory. According to the tied migration theory, couples move to promote their collective welfare. This endeavor can, yet, must not necessarily coincide with the individual preferences of both partners. Instead, one partner – the so-called lead migrant - may expect to gain from migration, whereas the other – the so-called tied migrant - may not. This is in contrast to situations in which both partners – called equal migrants in this study – expect to benefit from moving. This gender-neutral view on couples' migration decisions was first challenged by Shihadeh (1991) and Bielby and Bielby (1992), who hypothesized traditional gender roles to reproduce throughout the process of migration. Following this logic, it is more difficult for women than for men to initiate migration as well as to prevent it when expecting losses.

To date, analyses of couples' migration decisions remain scarce. On the one hand, one body of literature has explored how couples decide on migration. These studies conclude that men dominate that decision (Bielby & Bielby, 1992). Couples' migration decision making and its impacts have, however, been assessed once: Taylor (2007) found tied migration to reduce the employment probability for both men and women. These insights have been obtained from analyses of internal migration only – that is, residential mobility in a country.

In a globalized world, international migration is evolving into a common experience for many couples and their families (Organization for Economic Co-operation and Development [OECD], 2017). Insights into internal couple migration are, however, not necessarily transferrable to the experiences of immigrant couples. This is due to two reasons.

First, the (im)material costs faced by international migrants, given differing legal frameworks, languages, and work cultures across countries, significantly exceed the costs from internal migration. Second, an accompanying phenomenon of internal as well as international couple migration is family reunification. Rather than migrating at the same time, couples frequently decide to migrate one after another and often several years apart (Green, Hogarth, & Shackleton, 1999; OECD, 2017). Yet, whereas family separation within a country still allows for long-distance commuting, separation across national borders hinders frequent contact and visit. Taken together, these two aspects can be expected to introduce yet undiscovered dynamics to decisions on international couple migration and their impacts.

This article aims to uncover these dynamics. I study the employment experiences of tied relative to lead and equal migrants and test whether they differ in their post-migration employment probability and time to first employment in Germany. Entries into the labor market are generally considered a key dimension of migrant integration as employment allows for material well-being and financial security as well as for establishing new social contacts (OECD, 2005). To investigate transitions into employment, I restrict the analysis to migrants who were legally allowed to immediately access the German labor market, using difference-in-difference and survival analysis regression techniques and data from the German Socio-Economic Panel Survey (SOEP) (Goebel et al., 2019). Using data from the SOEP offers two main advantages: First, it unites a wide range of pre- and post-migration information and, second, it includes questions on the circumstances of couples' migration decisions. Previously, only Taylor (2007) identified tied migrants from couples' reports. Similarly, this study links the concept of tied migration to respondents' accounts of who was the decisive force in their decision. This offers a first unique insight into decisions on international couple migration.

Overall, this article extends previous theoretical and empirical findings on the decision making in international couple migration and its employment consequences.

Background

Theoretical Insights

Long (1974), DaVanzo (1976), Sandell (1977), and Mincer (1978) provided the first theoretical insights into the dynamics of couple migration. To date, the most influential of these first insights remains the tied migration theory proposed by Mincer .

Mincer's tied migration theory is based on the assumptions of the human capital model of migration (Becker, 1962; Harris & Todaro, 1970; Sjaastad, 1962). In that model, when facing the decision on whether to migrate, individuals first estimate the associated expected gains and costs. If and only if the expected gains are found to exceed the expected costs, individuals decide to migrate. Hence, any individual *i* decides to migrate if:

$$R_i = G_i - C_i > 0 \quad (1)$$

where R_i is the expected return, G_i is the expected gain, and C_i the expected cost of migration.

The tied migration theory expands on the human capital model of migration by incorporating family ties as one decisive factor behind migration decisions. Specifically, the tied migration theory moves away from seeing the individual at the center of the migration decision and argues instead that this decision is taken in the family context and particularly between partners in an effort to promote their collective return. Accordingly, the decision rule set in Equation 1 needs to be adjusted as follows:

$$R_c = \sum_{i=P1,P2} G_i - C_i > 0 \quad (2)$$

where R_c is the couple's expected return from migration, *P1* stands for Partner 1 and *P2* for Partner 2. Thus, migration decisions in the tied migration theory are based on the couple's expected return to migration, which is the sum of both partners' individual considerations as seen in Equation 1. The model thus abstracts from the presence of further family members. Rather, the couple is seen as the relevant unit for migration decisions. Accordingly, Mincer

(1978) modified the decision rule for partnered individuals. Now, their expected collective - rather than individually expected returns - must be greater than zero to decide for migration.

On the one hand, the expected couple return to migration can be greater than zero if both partners expect to gain. These individuals will be called equal migrants throughout this study. Yet, further, Mincer (1978) highlighted that even if only one partner expected positive returns from migration, the couple's expected return could be positive. By way of example, we may imagine a situation in which $R_{P1} < 0$ and $R_{P2} > 0$ –- that is, Partner 1 expects to lose from migration, whereas Partner 2 expects to gain from it. Yet, if $R_{P2} > |R_{P1}|$ and the expected gains of Partner 2 therefore exceed the expected losses of Partner 1 in absolute terms, the couple's expected return to migration is still positive. Then it is rational for the couple as a whole to move. In this scenario, Mincer calls Partner 1 the tied migrant and Partner 2 the lead migrant: Partner 1 migrates along with Partner 2 despite this not being individually rational as his or her expected costs exceed the expected gains from migration. Whether there is and who is the tied migrant is thus independent of gender but rather, depends on an individual's expected returns to migration. Hence, the tied migration theory is gender-neutral.

In the past, Mincer's theory has repeatedly been criticized for assuming that both partners pursue a common goal –- that is, maximizing their collective expected return. Bargaining theory relaxes this assumption (Bielby & Bielby, 1992). Through the lens of bargaining theory, migration decisions of couples are negotiations between partners with heterogeneous interests. Bargaining theory further argues that the outcomes of these negotiations will reflect the will of those individuals with relatively more bargaining power when compared with their partners (Lundberg & Pollak, 2003). Accordingly, if $R_{Pl} < 0$ and $R_{P2} > |R_{P1}| > 0$, migration will only occur if Partner 2 does not have enough power to prevent the move. Contrary to the Mincer model, bargaining theory thus implies migration to occur less often as partners expecting losses can refuse to move conditional on having sufficient bargaining power.

These gender-neutral views on the migration of couples were first challenged by Shihadeh (1991) and Bielby and Bielby (1992). These authors pointed to the significance of gender role theory for understanding patterns of couple migration. Gender roles are "roles that men and women have been socialized to accept in society" (Shihadeh, 1991, p. 433). Traditional gender roles portray men as breadwinners and women as focused on domestic work and care duties (Shauman & Noonan, 2007). Bielby and Bielby (1992) hypothesized such traditional gender role beliefs to reproduce in the process of couple migration and to introduce asymmetries into it. Equation 3 incorporates this line of argumentation into Mincer's model.

$$\mathrm{R_c} = \sum_{\mathrm{i=P1,P2}} (\mathrm{G_i} - \mathrm{C_i})/\delta_\mathrm{i} > 0 \qquad (3)$$

where *P1* now is the male and *P2* the female partner and let $0 < \delta_{P1} < 1$ and $\delta_{P2} > 1$ be discount factors that both partners equally accept. These factors cause the following to hold: $R_{P1}/\delta_{P1} > R_{P1}$ and $R_{P2}/\delta_{P2} < R_{P2}$. Hence, relative to before, females' returns are now given a lower and males' returns a higher weight. Accordingly, for a couple's expected return to be positive when male partners anticipate a loss, female partners have to expect disproportionally high gains from migration. Likewise, small expected gains for male partners are sufficient to generate a positive expected couple return even if female partners expect to incur high losses. The discount factors thus reflect the essence of traditional gender roles in which males as providers are assigned superordinate roles (Bielby & Bielby, 1992).

Overall, the theories thus focus on the interplay of individual expected returns in couples' migration decisions. After migration, individuals receive real returns. Taking expected as the basis for real returns, tied migration and bargaining theory thus predict those individuals whose interests are aligned with the decision – that is, following Mincer's terminology, lead and equal migrants – to have higher real returns from migration relative to tied migrants. Yet, gender role theory highlights that there may be dynamics in the migration decision making process that cause gender-specific experiences for tied relative to lead and equal migrants.

Determinants and Consequences of Couple Migration

During the past half century, extensive empirical research on the mobility of couples has been carried out. Most studies on couple migration deal with its employment consequences. Numerous studies show that partnered female movers around the world are disadvantaged in terms of their employment (Boyle, Zhiqiang, & Vernon, 2009; Clark & Huang, 2006; Geist & McManus, 2012; Jacobsen & Levin, 1997; Lersch, 2013; Rabe, 2011; Shauman & Noonan, 2007; Zaiceva, 2010), earnings (see, for instance, Clark & Withers, 2002; Lichter, 1980), and working conditions (Morrison & Lichter, 1988) after migration. These disadvantages are mostly short lived (Spitze, 1984), although not for women with children (Boyle, Cooke, Halfacree, & Smith, 2003). In contrast, empirical evidence shows the earnings of partnered men to rise after moving (Cooke, 2003; Jacobsen & Levin, 2000). Hence, partnered men benefit from migration, whereas it disadvantages partnered women. This result has been associated with the concept of tied migration by coining the term *trailing wife*, implying the intersection of partnered women and tied movers (Taylor, 2007).

In contrast, analyses of couples' migration decisions remain scarce. One body of literature explores how couples' migration decisions are influenced by the characteristics of both partners. These studies overwhelmingly conclude that males dominate the decision to migrate, even if their female partners have relatively more resources (Bielby & Bielby, 1992; Duncan & Perrucci, 1976; Lichter, 1983; Shauman, 2010; Shihadeh, 1991; Tenn, 2010).

Furthermore, there is also little evidence on the effects of dynamics in couples' migration decisions. Individual preferences in couples' migration decisions have been mostly linked to legal immigration classes, equating accompanying family with tied movers (Banerjee & Phan, 2015). Yet, visa classes only partly reproduce couples' preferences as further factors, such as requirements to obtain certain legal statuses, ultimately drive selection into them. By contrast, couples' migration decisions and their impacts have only been assessed once by drawing on respondents' direct reports: Taylor (2007) defined tied migrants as those who moved

for their partner's job and found tied husbands and wives in Great Britain to be less likely to be employed after relocation. However, Taylor depicted internal migration. Although the employment of migrant wives in general (see, for instance, Adsera & Ferrer, 2016) has been commonly considered, the decision making process with regards to international couple migration has not yet received any attention. This study aims to shed light on this issue.

Hypotheses

Tied migration and bargaining theory predict those individuals whose interests are aligned with the migration decision – that is, lead and equal migrants – to benefit from migration relative to tied migrants. I measure these benefits, first, through the probability to be employed and, second, through the time to first employment. Accordingly, I hypothesize the following:

> Hypothesis 1: Tied migrants are less likely to be employed than lead or equal migrants after migration.

> Hypothesis 2: Tied migrants take longer than lead or equal migrants to secure a first job after migration.

The extension to Mincer's model highlighted gender-specific dynamics. Specifically, women must expect disproportionally high returns to initiate migration, whereas moderately positive expected returns for men are sufficient to compensate for high expected losses of women. Hence, among those couples who migrate, female lead movers can be expected to have, on average, higher gains than male lead movers. By contrast, female tied movers will, on average, have higher losses relative to their male counterparts. Therefore, I hypothesize the following:

> Hypothesis 3: The difference in the probability to be employed after migration is larger when comparing female lead or equal to tied migrants than when comparing male lead or equal to tied migrants.

Hypothesis 4: The difference in the time to first job after migration is larger when comparing female lead or equal to tied migrants than when comparing male lead or equal to tied migrants.

Method

Data

To test these hypotheses, I refer to individual-level data from the SOEP. The SOEP is a longitudinal household study representative of adults living in private households in Germany. It was launched in 1984 and has been carried out on an annual basis since then. As part of their annual interviews, respondents provide information on various topics such as their income and employment (Goebel et al., 2019).

For the purpose of this study, I extract information from the migration samples (Samples M1 and M2) of the SOEP. These were added to the SOEP in 2013 and 2015, respectively (Brücker et al., 2014). Their target population consists of first-generation immigrants who arrived in Germany between 1995 and 2013 and second-generation immigrants residing in Germany (Kroh, Kühne, Goebel, & Preu, 2015; Kühne & Kroh, 2017). A key feature of the SOEP is to not only survey household heads but also to include all other adult members (aged 17 years and older) of the household. Therefore, the migration samples enclose a wider circle of individuals than the mere target population. To date, 7,366 individuals have been surveyed as part of the SOEP migration samples; 5,703 of which are first-generation migrants. This study's population of interest is first-generation immigrants, who indicate that they were in a serious relationship prior to moving to Germany, whose relationship persisted beyond the move, and whose partner resides in Germany yet is not German-born. A total of 2,205 respondents in the sample meet these criteria (see Table 1). Furthermore, given that this study focuses on employment, I restrict the sample to working-age individuals (aged 23 to 60

at immigration). Also, I do not consider refugees as previous studies found their labor market access to be particularly difficult (Bevelander, 2011). I further exclude tourists and students. Next, I use listwise deletion for individuals with missing data on explanatory or control variables or who did not provide employment data for at least one point for both before and after migration.

Table 1. Analytical sample with exclusion criteria

Sample restrictions	*N*
Samples M1 and M2	7,366
First-generation immigrants	5,703
In a relationship prior to immigration, relationship persisted beyond the move and partner resides in Germany but is not German-born	2,205
Age at immigration between 23 and 60	1,956
No refugee background	1,722
No students or tourists	1,665
No missing data – explanatory/control variables	1,626
Data for at least two points in time	1,618
Residence permit allows for immediate employment	1,488
Immigrated after 1982	1,485
Final Sample	1,485

Note: The abbreviations M1 and M2 stand for the SOEP migration samples.

I further only include respondents whose residence permits allowed for immediate employment. Overall, this study covers migrants with the right to freedom of movement in Germany – that is, individuals from the European Union, European Economic Area, and Switzerland –, ethnic German repatriates and finally, migrant workers, family, and other migrants. Table 2 summarizes the regulations for each group per immigration period. Based on Table 2, I exclude family migrants who immigrated before 2004. Finally, due to low sample size prior to that, I restrict the sample from the immigration year 1982 onward.

Table 2. Immigrant groups and labor market restrictions over time

Immigrant group	Immigration period	Labor market regulation	N	Action
EU, EEA, Swiss citizens	1969 - 2016	Unrestricted access	652	In final sample
Ethnic German repatriates	1953 - 2016	Unrestricted access	394	In final sample
Migrant workers	1974 - 1981	No work permits	0	Excluded
	1982 - 2016	Unrestricted access	215	In final sample
Family migrants	1974 – 1981	No work permits	1	Excluded
	1982 – 1990	Waiting period of 4 years until full labor market access	6	Excluded
	1990 – 2004	Waiting period of 1 year until full labor market access	123	Excluded
	2005 – 2013	Can access labor market if principal migrant is allowed to	180	In final sample
	2013 - 2016	Unrestricted access	27	In final sample
Other	1969 - 2016	Unrestricted access	17	In final sample

Note: References include Treaty on Functioning of the European Union (2007), Agreement on European Economic Area (1994), EU-Swiss Association Agreement (1999), Federal Expellees Act (1953), Aliens Act (1965) and Verordnung über die Arbeitsgenehmigung für ausländische Arbeitnehmer (1971). EEA = European Economic Area; EU = European Union. Further, the principal migrant is the migrant in the family to whom the family visas are linked.

Measures

The outcome variables for this study are an indicator of employment and a continuous variable recording individuals' time to first employment after migration. I obtain respondents' annual employment statuses from responses to the following question:

> Please state what has happened in your life since you were 15 – from when to when you were in school, vocational training, employed, etc. It is important that you give some answer for every year of your life up to the present or up to the age of 65. If more than one

> answer applies in a particular year, please give more than one answer. (Taylor Nelson Sofres [TNS] Infratest Sozialforschung, 2016, p. 30)

The response options include: "I was attending school/university/night school," "I was completing an apprenticeship/vocational training/further education/retraining," "I was in (voluntary) military/community service, voluntary social/ecological year, federal volunteer service, at war, in captivity," "I was employed full-time," "I was employed part-time," "I was unemployed," "I was a homemaker," "I was retired," and "Other" (TNS Infratest Sozialforschung, 2016, p. 30). Respondents thus give a retrospective account of their entire occupational biography, which I additionally supplement with details on respondents' employment provided as part of the annually recurring surveys. This offers the advantage of uniting pre- and post-migration information for all respondents who immigrated after age 15.

I define *employment* as being economically active – that is, being either full- or part-time employed. The reference category thus comprises unemployment as well as economic inactivity. Generally, the economically inactive are those who are not available for work (for instance, homemakers). In case a respondent reports multiple activities for any given year and this includes a mix of being economically active, inactive, and unemployed, I denote the respondent to be employed for that year as there was some contact with the labor market.

In examining the outcome, I include various individual-level controls but focus on individual preferences in couples' migration decisions – that is, the impact of being a tied versus lead or equal migrant. I identify tied, lead, and equal migrants from the following question:

> A relationship, whether marriage or otherwise, can affect our decisions, sometimes to a greater and sometimes to a lesser extent. We therefore ask you to think back to before you moved to Germany—before you made the decision to move here. What played the decisive role in your decision to move here–who was the driving force in that decision? (TNS Infratest Sozialforschung, 2016, p. 20)

The response options include the following: “my partner,” “I was,” and “both to an equal extent” (TNS Infratest Sozialforschung, 2016, p. 20). I define *tied migrants* as those whose partner played the decisive role in the migration decision, *lead migrants* as those who themselves played the decisive role in the migration decision, and *equal migrants* as those who report that they were as involved in the decision making process as their partner.

The way in which this study identifies tied, lead, and equal migrants reflects the theoretical concepts presented previously. I define *lead migrants* as respondents who perceive themselves as having pressed for emigration. Hence, it can be assumed that these respondents expected to gain from migration. By contrast, they do not report their partners as having actively pursued emigration; otherwise they would have indicated so by answering with “both to an equal extent.” Hence, the respondents who reported “I was” initiated migration for their advantage, whereas their partners were not actively interested in migration, suggesting that their costs from migration exceeded the associated gains. The measurement does not, however, reveal how close the migration decision exactly was – that is, whether the couple was in large disagreement or whether both partners were eventually convinced of migration despite one partner taking the decisive role in that decision. Furthermore, in contrast to Taylor (2007), the measurement does not reflect whether migration occurred for employment-related reasons. For instance, individuals could have also assumed the decisive role in migration decisions for the benefit of their children. Yet, regardless of the original migration motif, employment is unexceptionally desirable for immigrants as they do not enjoy immediate, full access to the German welfare system. Rather, immigrants are subjected to waiting periods until they are allowed to claim social benefits, their amount is crucially linked to prior employment, and migrants from third countries additionally have to prove that they have sufficient resources for living in Germany. Overall, the measurement thus provides a first meaningful insight into the employment consequences of decision dynamics in international couple migration.

The final sample consists of 1,485 tied, lead, and equal migrants, who immigrated to Germany between 1985 and 2015. A total of 652 respondents moved to Germany by right to freedom of movement, and 394 as ethnic German repatriates and their family members. Of the remaining 493 respondents, most (215) came to Germany as migrant workers, 207 as family migrants, and 17 for other reasons. I identify 433 respondents (29%) as tied, 407 respondents (27%) as lead, and 645 respondents (44%) as equal migrants. The sample is almost equally split between men (720, 48%) and women (765, 52%). Yet, this equal distribution of male and female respondents does not hold across tied and lead migrants: I identify 259 of 433 (60%) tied migrants to be women and 239 of 407 (59%) lead migrants to be men. By contrast, the relative shares of tied, lead, and equal migrants across regions of origins (European Union-28, post-Soviet states, and rest of the world) are almost equally distributed. Finally, the partners of 935 respondents have also been surveyed by the SOEP. Hence, their responses on who was the decisive force can be compared to their partner's responses. This comparison is relevant as respondents' accounts are retrospective and might thus be clouded by experiences made since migration. Looking at whether the responses of both partners match thus hints at the extent to which retrospectivity influenced response behavior. Overall, 80% (748 respondents) answered consistently with their partners, identifying, for instance, as tied migrants when their partner reported to have dominated the decision. Thus, most respondents answered consistently with their partner mitigating the concern of retrospectivity. I retain inconsistent responses as these constitute a subjective account of the decision, which might still have impacted employment behavior.

I further control for a range of individual-level variables. These include the respondent's age, an indicator of whether the respondent has children aged 18 or younger (1 = "yes," 0 = "no") and a categorical variable recording German language skills (1 = "poor," 2 = "medium," 3 = "good"). Respondents self-assess their abilities to speak, read, and write German before migration on a scale from 1 (*very well*) to 5 (*not at all*). I reverse the item scales,

determine Cronbach's α for the items (α = .94), and calculate the associated rounded score. Then I group the responses "not at all" and "badly*"* to 1 (*poor German*) and "very well" and "well" to 3 (*good German*). Although this score cannot grasp language acquisition following migration, it is still relevant for my analyses as these are concerned with employment around the time of immigration. Furthermore, I include the respondent's years of education from age 15 onward. Prior to that, immigrants' educational attainment is not surveyed by the SOEP. However, this still guarantees an adequate representation of respondents' acquisition of education as the years of education since age 15 are indicative of individuals' highest educational degree but also allow for insights into potential retraining after migration. Finally, I include categorical variables for period of immigration (1 = "before 2000," 2 = "between 2000 and 2010,*"* 3 = "from 2010 onward*"*) and region of origin (1 = "European Union-28," 2 = "post-Soviet," 3 = "rest of the world*"*).

Methods

I have annual pre- and post-migration employment information and aim to identify the impact of being a tied versus lead or equal migrant on the probability to be employed (Hypothesis 1). I thus specify a difference-in-difference model. Difference-in-difference models compare the average outcomes of a treatment versus control group over time beyond the onset of a treatment. For this study, tied migrants form the treatment group and lead and equal migrants the two control groups. Assignment to treatment is thus non-random: Some individuals are more likely than others to be tied movers. The treatment onset is the year of immigration. For all difference-in-difference estimations in this study, I restrict the sample to range from 5 years before to 5 years after every respondent's immigration. I report the model as a linear probability regression. The model takes the following form:

$$y_{it} = \zeta_i + \eta_t + \beta T_{it} + \delta X_{it} + u_{it} \quad (4)$$

where y_{it} is the binary dependent variable equal to one if individual i is employed in calendar year t, and ζ_i are individual fixed effects. Furthermore, η_t are year fixed effects that control for economic shocks. T_{it} is the treatment dummy equal to one for tied migrants from their year of immigration onwards. Thus, T_{it} is equal to zero for lead and equal migrants at any time as well as for tied migrants before migration. Next, X_{it} is a set of time-varying covariates (age, education, German skills before migration, and an indicator of whether the respondent has children). Respondents' German skills are interacted with a post-migration dummy variable as knowledge of German is highly relevant for employment in Germany, yet less so in countries of origin. Time-constant covariates are not included due to their collinearity with individual fixed effects. In general, I include covariates and individual fixed effects to take the non-random selection into treatment into account. Finally, u_{it} is the error term. Following Bertrand, Duflo, and Mullainathan (2004), I cluster the error term on the individual level. To identify gender-specific effects, I run separate regressions by sex (Hypothesis 3).

In a further specification of Equation 4, I examine the treatment effect over time by including its leads and lags. I add treatment indicators for the 3 years before immigration, the year of immigration, the first year after immigration, and from the second year after immigration onward. The first five treatment indicators are only equal to one for tied migrants in the respective year, whereas the last indicator is equal to one for tied migrants in the second year after immigration as well as in all following years. Hence, I modify Equation 4 as follows:

$$y_{it} = \zeta_i + \eta_t + \sum_{j=-3}^{2} \beta_j T_{it}(t = g + j) + \delta X_{it} + u_{it} \qquad (5)$$

where g is the immigration year, and all other variables are defined as before. I include these treatment indicators for two reasons. First, I include treatment leads to simulate a pseudo-treatment before the actual treatment onset. This is to test the common time trend assumption, which is necessary for identification in difference-in-difference estimations. The common time

trend assumption states that in the absence of treatment, the difference between the treatment and control group is fixed over time. As the time before immigration constitutes a period absent of treatment, insignificant estimates of treatment leads provide evidence for common time trends (Autor, 2003). Second, I include treatment lags to observe the behavior of the effect over time. This is to see whether the effect of being a tied migrant accelerates, reverts, or stabilizes over time. For instance, if a negative treatment effect shows in the first year after immigration but is insignificant thereafter, it can be concluded that the employment gap between tied and lead or equal migrants only briefly widened after migration.

I conduct several sensitivity analyses. First, as non-response could drive the results, I fit the same set of models for those respondents in the sample (390 men and 412 women) who reported their employment status for each year of the observation period – that is, for the 5 years before, the year of, and the 5 years after immigration to Germany. Second, as touched on before, some couples provided inconsistent answers to the question on who was the driving force. I run a robustness check with consistent accounts (372 men and 376 women). Third, migration might lead to union dissolution. Hence, I re-run the regressions for those respondents (656 men and 710 women) who did not separate from their partner until first surveyed. Fourth, family migrants who immigrated between 2004 and 2013 were only allowed to work if their partner was (see Table 2). Only few residence titles prohibited employment of principal migrants and these (e.g. asylum seekers) cannot be identified from the SOEP. I thus first include those family migrants, yet exclude the ones whose partner's right to work is unclear (690 men and 705 women). In a final robustness check, I retain respondents who were at least once employed in Germany (667 men and 569 women).

Furthermore, the annual post-migration employment data allow for identifying when respondents took up their first job. Thus, it is possible to test whether the time to first employment differs significantly between migrant types (Hypothesis 2). For this, I restrict the

sample to cover all years from the year of immigration onward and use Cox proportional hazards regressions:

$$h(t_1 \mid x_i) = h_0(t_1) \exp(\beta_1 TM_i + \delta X_i) \quad (6)$$

where $h(t_1 \mid x_i)$ is the hazard rate for individual i to take up employment in year t_1 after migration. $h_o(t_1)$ is the baseline hazard, which is not given any particular parameterization in the Cox model. Furthermore, TM_i is a categorical variable recording whether the respondent is a tied, lead, or equal migrant. Finally, X_i is a set of time-constant control variables (respondent's age, education, German language skills before immigration, region of origin, immigration period, and an indicator of whether the respondent has children). These covariates are set constant to the immigration year as this marks the start of the employment search, and respondents' characteristics at this point should be most relevant. I perform the same robustness checks as before: I exclude respondents with inconsistent accounts, who separated before being surveyed, and who immigrated as family migrants before 2013. To identify gender-specific effects, I run separate regressions by sex (Hypothesis 4).

Results

Employment Probability

Table 3 summarizes the average socioeconomic characteristics of tied, lead, and equal migrants by gender in their year of immigration. Table 3 suggests that at immigration, male tied, lead, and equal migrants were comparable in terms of their age, education, and German skills as well as in their likelihood of having children. In contrast, there were several significant differences between female tied and lead migrants in their immigration year. Table 3 demonstrates that female lead migrants were, on average, older and less educated than tied migrants. Furthermore, female lead migrants had more profound knowledge of German relative to tied migrants. By contrast, female tied and equal migrants were again more comparable, with the only significant

difference being better German language skills among equal migrants. Finally, Table 3 also displays the first outcome of interest: employment. It illustrates that men of any migrant type were significantly more likely to be employed than women. Furthermore, male and female lead and equal migrants were more likely to be employed than tied migrants. This gap was more pronounced among male than female respondents in the sample.

Table 3. Mean socioeconomic characteristics by gender and migrant type at immigration

Variables	Males			Females		
	Tied	Lead	Equal	Tied	Lead	Equal
Employment[a]	.77	.92[×]	.87[×]	.58	.70[×]	.66[×]
	(.42)	(.28)	(.34)	(.50)	(.46)	(.47)
Age	34.86	34.28	35.58	33.15	34.83[×]	33.67
	(8.64)	(8.27)	(8.54)	(7.48)	(8.70)	(8.17)
Education	4.86	5.05	4.83	5.58	4.42[×]	5.42
	(3.80)	(3.87)	(4.04)	(3.75)	(3.31)	(4.06)
Children[b]	.59	.62	.66	.60	.65	.62
	(.49)	(.49)	(.47)	(.49)	(.48)	(.49)
German skills[c]	1.59	1.58	1.58	1.52	1.87[×]	1.63[×]
	(0.65)	(0.68)	(0.64)	(0.67)	(0.80)	(0.70)
N	174	239	307	259	168	338

Note: Standard errors in parentheses.
[a] Employment: 0 = "unemployed/economically inactive," 1 = "employed." [b] Children: 0 = "no," 1 = "yes." [c] German skills: 1 = "poor," 2 = "medium," 3 = "good." [d] Means differ from the mean of tied migrants at $p <$. .05.

Table 4 sheds further light on the outcome of interest. It presents unadjusted difference-in-difference estimates and thus compares differences in mean employment between tied, lead, and equal migrants by gender for before and after immigration. As the number of observations per respondent differs due to partial item non-response, I calculated the mean employment in Table 4 by first computing every respondent's mean employment for before and after migration separately and by then taking the average over the resulting individual means. Three features stood out. First, female lead and equal migrants were significantly more likely to be employed before migration than tied migrants. This pattern did not show among male respondents. However, the pattern held after immigration with male and female lead migrants being significantly more likely to be employed compared with tied movers.

Table 4. Mean employment[a] by gender and migrant type before and after immigration

Migrant Type	Before Immigration		After Immigration		After – Before	
	Males	Females	Males	Females	Males	Females
Lead	.87	.72	.93	.66	.06***	-.06***
	(.28)	(.38)	(.19)	(.37)	(.01)	(.02)
Equal	.86	.66	.83	.57	-.03**	-.09***
	(.29)	(.42)	(.29)	(.39)	(.01)	(.01)
Tied	.88	.62	.81	.57	-.07***	-.05***
	(.27)	(.42)	(.31)	(.37)	(.01)	(.02)
Lead – Tied	-.01	.10***	.12***	.09***	.13***	-.01***
	(.01)	(.02)	(.01)	(.02)	(.00)	(.00)
Equal – Tied	-.02	.04*	.02	.00	.04***	-.04***
	(.01)	(.02)	(.01)	(.01)	(.00)	(.00)
N	3,595	3,810	3,617	3,862	7,212	7,672

Note: Standard errors in parentheses.
[a] Employment: 0 = "unemployed economically inactive," 1 = "employed."
* $p < .05$, ** $p < .01$, *** $p < .001$

In contrast, there were no notable differences between tied and equal migrants subsequent to migration. Second, male lead migrants were the only group more likely to be employed after migration. In contrast, the women of all migrant types were less likely to be employed following migration. Finally, Table 4 shows that there was a post-migration employment gap between male tied migrants and their two control groups. The opposite was true for women.

Yet, the interpretation of these effects is problematic as observable and unobservable factors could drive them. Table 5 addresses this issue. Table 5 presents the effect of being a tied migrant on employment with separate regressions by sex. Separate regressions are also run for the two control groups. Turning first to the results for the entire sample, it becomes apparent that tied migrants were 10% less likely to be employed after immigration when compared with lead migrants. This effect held across the sexes (Models 3 and 5). Yet, whereas male tied migrants had a significantly lower employment probability (15%) when compared with male lead migrants after migration, this difference, though negative, was not significant for women. By contrast, employment differences between tied and equal migrants were less pronounced.

Table 5. Model estimates for employment (y = 1, employed)

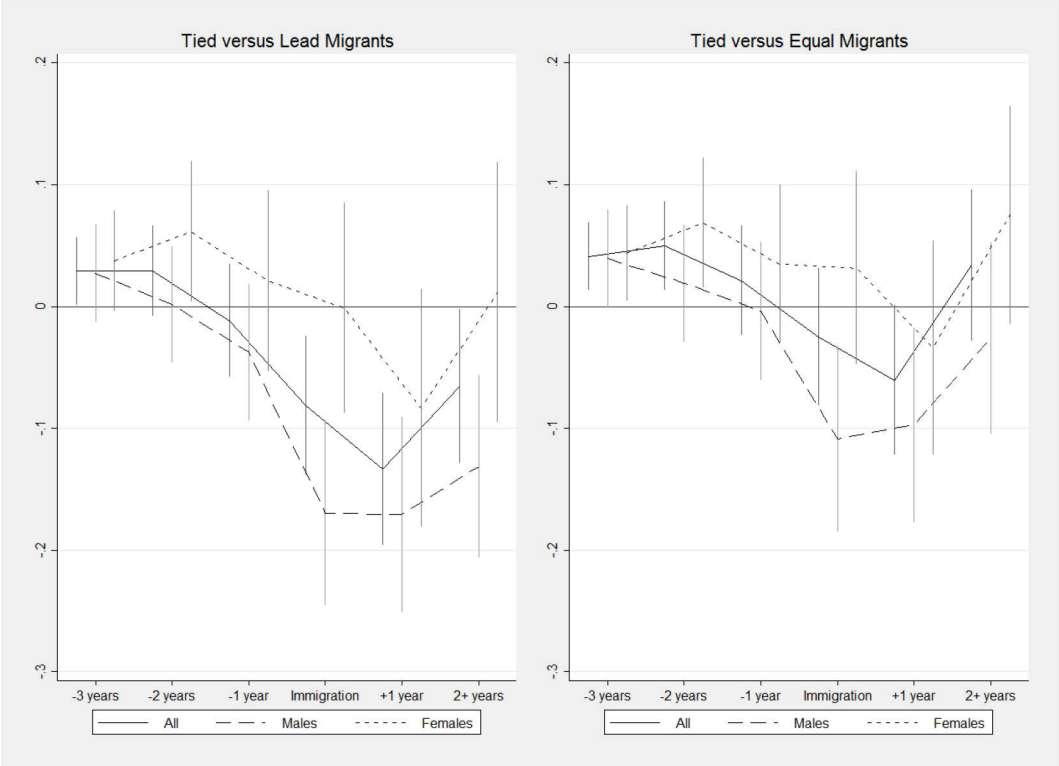
	All				Males				Females			
	1		2		3		4		5		6	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Tied vs. Lead migrant	-0.10***	0.02			-0.15***	0.03			-0.05	0.03		
Tied vs. Equal migrant			-0.03	0.02			-0.08*	0.03			0.00	0.03
Age												
Ref.: 18 - 30												
31 - 40	0.17***	0.02	0.13***	0.02	0.17***	0.03	0.14***	0.03	0.16***	0.04	0.13***	0.03
41 - 65	0.14***	0.04	0.10*	0.04	0.09*	0.04	0.09*	0.04	0.16*	0.06	0.08	0.06
German skills												
Ref.: Poor												
Medium	-0.04	0.03	-0.08***	0.02	0.01	0.03	-0.03	0.03	-0.09*	0.04	-0.13***	0.04
Good	-0.00	0.04	0.01	0.04	0.08	0.05	0.04	0.05	-0.06	0.05	0.00	0.06
Education years												
Ref.: 0 - 3												
4 - 6	0.01	0.11	-0.09	0.14	0.07	0.11	0.08	0.13	-0.00	0.19	-0.50***	0.12
> 6	0.25	0.13	0.24	0.16	0.40*	0.15	0.59***	0.15	0.21	0.21	-0.25	0.15
Children												
Ref.: No												
Yes	-0.10***	0.02	-0.12***	0.02	0.01	0.02	0.02	0.02	-0.21***	0.03	-0.23***	0.03
N	8,500		10,716		4,194		4,771		4,304		5,944	
Individuals	840		1,078		413		481		427		597	
Individual FE	Yes		Yes		Yes		Yes		Yes		Yes	
Year FE	Yes		Yes		Yes		Yes		Yes		Yes	
Adjusted R^2	0.44		0.43		0.38		0.35		0.41		0.42	

Note: Standard errors clustered on individual level. The directions of the treatment effects were confirmed to hold in probit models. Ref. = reference category; FE = fixed effects.

* $p < .05$, ** $p < .01$, *** $p < .001$

The effect of being a tied versus equal migrant was negative yet not significant for the entire sample or for women. Male tied migrants were 8% less likely to be employed when compared with equal migrants after migration. These results for the male and female subsamples remained virtually unchanged in all robustness checks (tables available upon request). Briefly turning to the covariates in Table 5, their direction was mostly as theoretically expected. Surprisingly, there was a negative effect of having medium German skills among women. This can, however, be ascribed to the variable's self-assessed nature. Also, there was a sizable, negative education effect (Model 6). This could either point to a dynamic in which highly qualified women find it particularly difficult to be employed or to retraining following migration given unemployment or economic inactivity.

Figure 1. Model estimates for employment (y=1, employed), treatment leads and lags



Note: Displayed with 95% confidence intervals.

Figure 1 presents the basic specification augmented with treatment leads and lags and plots the corresponding estimates. Turning first to the results in which lead migrants form the control group (left graph), it is crucial to note that the coefficients of the treatment leads were close to

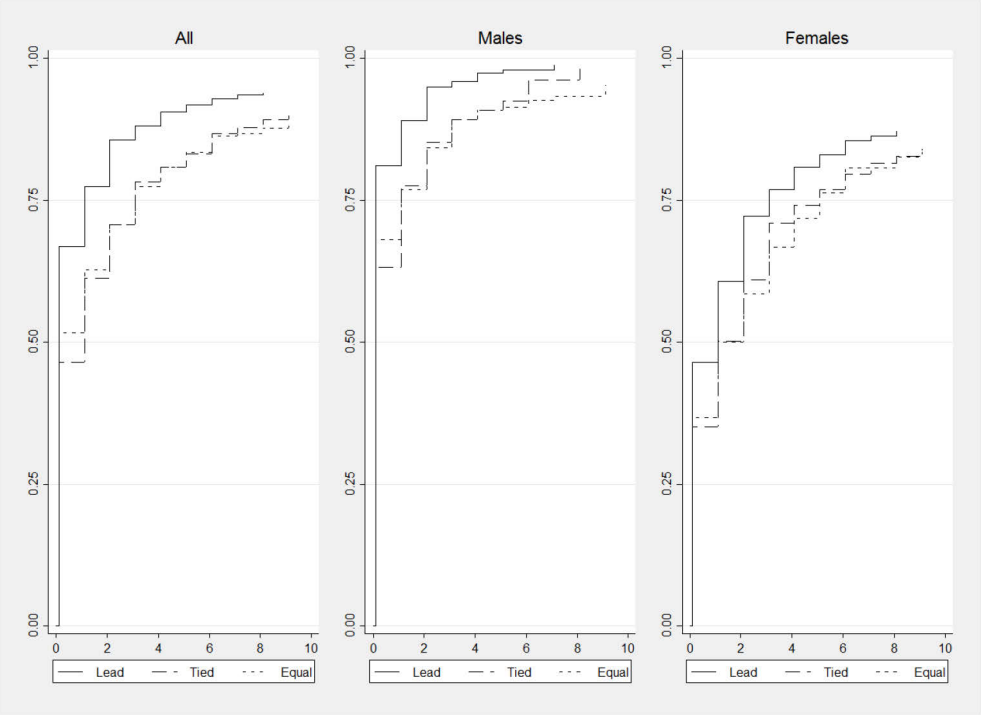
zero. Thus, there was little evidence for anticipatory responses before the treatment onset, suggesting parallel time trends. Furthermore, considering the results for the entire sample, it became apparent that the treatment effect mean reverted over time: In the immigration year, tied migrants were 8% less likely to be employed when compared with lead migrants. This effect amplified in the first year after migration when it rose to 13%. Following this, the effect decreased in size and significance, to 7% and 5%, respectively, from the second year after migration onward. Thus, the negative tied migrant effect persisted over time and was significant throughout. Yet, the robustness checks showed the negative effect of being a tied versus lead migrant in the entire sample to disappear from the second year after migration onward. All of the other results remained virtually unchanged. Turning to the results for women, Figure 1 does not show significant differences between tied and lead immigrants. This result was confirmed throughout all robustness checks except for when excluding all respondents with non-response. Then, female tied migrants were 15% less likely to be employed when compared with lead migrants in the first year after immigration. Overall, there was no significant difference between female tied and lead migrants following migration. The opposite held true for men: The decrease in the employment probability of tied versus lead movers amounted to 17% in the year of and the first year after migration and decreased only slightly thereafter, to 13%, from the second year after and onward. Hence, male tied movers were permanently disadvantaged relative to lead migrants. These effects remained unchanged in their direction and significance in all robustness checks, although slightly increasing in size when excluding respondents with non-response. Thus, there was evidence for non-random non-response when reporting employment. In summary, Hypothesis 1 was accepted, yet Hypothesis 3 was rejected for tied versus lead movers as the effect showed to be greater among men than women in the sample. The second graph in Figure 1 shows the basic specification of being a tied versus equal migrant augmented with treatment leads and lags. As is evident from Figure 1, there were significant differences between tied and equal migrants 3 years before migration. This challenged the

common time trend assumption, and the estimates should hence be interpreted as correlations. As before, there were no significant differences between tied and equal migrants for the entire sample as well as the sample of women. Yet, male tied migrants were 11% less likely to be employed when compared with equal migrants in the immigration year. This estimate decreased to 10% and 5% significance in the year after moving. Thereafter, the effect was close to zero and insignificant. This effect also persisted across the range of robustness checks. Hence, Hypothesis 1 was rejected: Tied migrants did not have a lower employment probability relative to equal migrants. Yet, this effect showed for men, rejecting Hypothesis 3.

Time to First Employment

Figure 2 presents the transitions into first employment by gender and type of migrant using Kaplan-Meier hazard estimates. Three features stand out. First, Figure 2 highlights that a large share of respondents in the sample and male respondents, in particular, were immediately employed upon their arrival in Germany. More than 50% of the respondents found their first employer only 1 year after migration. Second, there was a profound gender difference in the time to first employment. Relatively more men than women secured a job in their immigration year. Yet, further, this difference also persisted over time. Even 10 years after immigration to Germany, when almost all male respondents in the sample had accessed the German labor market for the first time, a large share of female respondents had not yet done so. Overall, 41 male and 152 female respondents in the sample did not access the German labor market within the observational period. Among those that did access the labor market, most (72%) were full-time employed in their first job. Yet, there was a stark imbalance in full- versus part-time employment across genders: Whereas merely 10% of men were part-time employed in their first job upon arrival, this was true for 47% of the women. Finally, Figure 2 displays separate Kaplan-Meier estimates by migrant type.

Figure 2. Transition into first employment by gender and migrant type



Note: Observation time restricted to 10 years in this figure.

Turning to the first graph in Figure 2, the results for the entire sample of respondents, it becomes evident that lead migrants had a lower probability to survive in unemployment relative to tied migrants. Overall, among those migrants who were not immediately employed, the median time of unemployment was equal to 2 years for lead migrants, whereas it amounted to 3 years for tied migrants. This difference in the survival times between lead and tied migrants can further be observed in the subsample of men: Approximately 95% of male lead migrants entered the German labor market as of the fifth year after migration, whereas only around 80% of tied migrants had found a first employer by then. Similarly, the difference in the time to first employment was pronounced between female lead and tied migrants. In contrast, the difference in the time to first employment is hardly visible between tied and equal migrants.

Table 6 presents the effect of being a tied versus lead or equal migrant, separately by gender, on the time to first employment. As can be inferred from Table 6, being a tied versus lead migrant was associated with an increased risk of a prolonged period of unemployment when considering the entire sample (Column 1).

Table 6. Model estimates for time to first employment

Variables	All		Males		Females	
	Estimate	SE	Estimate	SE	Estimate	SE
Migrant type						
Ref: Tied migrant						
Lead migrant	0.28***	0.07	0.12	0.10	0.22	0.11
Equal migrant	0.01	0.07	-0.04	0.10	-0.02	0.10
Age at immigration						
Ref: 18 - 30						
31 – 40	0.08	0.07	-0.05	0.09	0.13	0.09
41 – 65	-0.09	0.08	-0.31**	0.11	0.02	0.12
German skills						
Ref: Poor German						
Medium German	0.12	0.06	0.05	0.08	0.14	0.10
Good German	0.14	0.09	0.15	0.14	0.24	0.12
Education						
Ref: 0 - 3						
4 – 6	0.07	0.07	0.07	0.10	0.05	0.11
> 6	0.09	0.08	0.04	0.11	0.15	0.11
Children						
Ref: No						
Yes	-0.08	0.06	-0.01	0.09	-0.14	0.09
Immigration Period						
Ref: Before 2000						
2000 - 2010	-0.20*	0.08	-0.19	0.12	-0.19	0.12
From 2010	-0.05	0.09	-0.17	0.12	0.05	0.14
Region of origin						
Ref: EU-28						
Post-Soviet states	-0.34***	0.08	-0.42***	0.11	-0.31**	0.11
Rest of the world	-0.38***	0.08	-0.17	0.11	-0.64***	0.13
N	1,485		720		765	
Log likelihood	-8,715		-4,144		-3,683	

Note: EU = European Union; Ref. = reference category.
* $p < .05$, ** $p < .01$, *** $p < .001$

As can be inferred from Table 6, being a tied versus lead migrant was associated with an increased risk of a prolonged period of unemployment when considering the entire sample (Column 1). In fact, the risk of unemployment was 32% ($e^{0.28}$) higher for tied than for lead migrants with this estimate being significant at 0.1%. This effect did not persist across the sexes (see Column 3 and 5): Although pointing to the same direction as the result for the entire sample, the subsample estimates were insignificant. Also, no significant differences showed between tied and equal migrants. Turning briefly to the covariates in Table 6, their direction was as theoretically expected. These results also persisted across the range of robustness checks.

Furthermore, when including prior experiences of unemployment as an additional control, the key results remained unchanged. Also, the effects persisted yet increased in size when considering time to first full-time employment. Then, it further showed that female lead migrants were quicker in accessing full-time jobs than female tied movers, which might hint at diverging preferences across migrant types. Finally, I also compare the time to first employment within couples, looking at which partner first found a job in Germany. I performed this analysis on the sample of individuals who had not experienced union dissolution since their migration to Germany. This analysis also confirmed the results from before: Lead and equal migrants were more likely to first find a job or to find a job at the same time compared to their partner with smaller and less significant effects when considering equal immigrants. Furthermore, whereas the results in the male sample were large and significant, this was not true for the female subsample (tables available upon request). Hence, overall, Hypothesis 2 was rejected for equal, yet, accepted for lead migrants.

Discussion

This study analyzed the employment consequences of tied migration to Germany. First, I examined the hypothesis that tied, relative to lead and equal immigrants, have a lower employment probability and take more time to find a first job upon their arrival in Germany. Drawing on gender role theory, I further hypothesized the tied migrant experience to be more severe for women than for men. With this, I first examined the implications of individual preferences in couples' international migration decisions.

As part of the analysis, I applied difference-in-difference and survival analysis regression techniques to data from SOEP and ran regressions for the entire sample as well as separately for subsamples of men and women. I restricted the dataset to working-age migrants (excluding refugees, tourists, and students), who immigrated to Germany after 1982, who were in a relationship prior and subsequent to the move and, who were legally allowed to

immediately access the German labor market. Based on this setting, results from the survival analysis give insights into the correlation between migrant type and transition into first employment, whereas the difference-in-difference model, although applied to a non-experimental setting, provide a strong estimate given that I control for respondents' fixed and time-varying characteristics and examine pre-treatment dynamics.

Turning to the results for the entire sample first, the results showed that tied, relative to lead and equal immigrants, are less likely to be employed subsequent to their immigration to Germany. Yet, whereas the post-migration difference between tied and lead immigrants was revealed to be large and significant, the employment gap between tied and equal migrants, although negative, was close to zero and insignificant. The larger effect for tied versus lead compared with tied versus equal migrants mirrored in the time to first employment: Lead movers entered the German labor market significantly closer to their immigration when compared with equal and tied migrants. Hence, this study's first two hypotheses were confirmed with smaller and insignificant effects for equal versus tied migrants. These results can be explained within Mincer's (1978) model: Whereas lead movers need to compensate for expected losses of tied movers when deciding on migration, small expected gains for equal movers are already sufficient to decide for it. Thus, lead movers should, on average, have higher returns than equal movers.

Furthermore, the gendered extension to Mincer's theory showed that, in theory, the tied migrant experience should differ between men and women. Specifically, given the higher weighting of males' returns, the difference between female lead or equal relative to tied migrants should be larger than when drawing the same comparison among male respondents. Indeed, Taylor (2007) showed this hypothesis to hold for couples migrating within Great Britain. In contrast, this study's results showed the opposite: Overall, the employment gap between lead and equal relative to tied migrants was larger and longer lasting among men than among women. Still, lead migrants of both sexes were more likely to be employed when

compared with tied movers following immigration. The same held for equal relative to tied movers, yet, to a lesser extent in terms of estimate size. Again, this was mirrored in respondents' time to first employment: Independent of their sex, lead movers entered the labor market quicker than other migrant types.

There are two possible explanations for this surprising result. First, as outlined in the introduction, a phenomenon observed in internal as well as international couple migration is family reunification. Rather than migrating simultaneously, couples frequently move sequentially and several years apart (Green et al., 1999; OECD, 2017). Yet, whereas family separation within a country allows for long-distance commuting in a culturally, legally, and linguistically rather homogenous geographic context, family separation across national borders hinders frequent contacts and visits and exposes individuals to an unfamiliar environment. The more time that passes between the immigration of the first versus the second partner, the more time the first partner has to adjust to the new country of residence and, for instance, to build a network or learn the country's language. Once immigrated, the second partner can draw on this country-specific knowledge. Drawing on gender role theory and traditional gender role beliefs, in particular, it can be hypothesized that men are more likely than women to migrate at the same time as their partners and will thus have less country-specific knowledge available. In fact, there is some evidence supporting this hypothesis: For 362 tied migrants for whom I have information on their partner's year of immigration, I find that 52% of the female tied migrants moved more than 1 year after their partner, whereas merely 28% of the men did. Hence, relatively more men come at the same time or before their partners. Descriptive evidence in Table 4 further suggested that male tied migrants were less likely to be employed when compared with their female counterparts. Time to family reunification could thus explain the relatively larger employment gap that male tied compared with female tied migrants experience.

Second, distinct migration motifs across the sexes may offer an explanation. This study considers respondents' labor market integration as an outcome of circumstances in couples'

migration decision. As outlined previously, employment is highly desirable for migrants because it allows for material well-being and financial security as well as for establishing new social contacts (OECD, 2005). Furthermore, employment, unemployment, and economic inactivity of partnered individuals ultimately have far-reaching implications for the household's division of labor and family life as well as its considerations in future decisions. Thus, employment is a crucial outcome to consider that has profound consequences. Table 5 illustrated that men adopt the employment perspective when deciding on migration: Male lead and equal migrants are more likely to be employed relative to tied migrants following migration. This result also holds when excluding all respondents who were never employed in Germany. Hence, circumstances in couples' international migration decisions are decisive for males' employment trajectories in Germany. By contrast, the difference in the probability to be employed between female lead and equal relative to tied migrants did not change significantly after migration and when excluding those female respondents who have never been employed in Germany. Thus, females' individual preferences in decision-making do not seem to affect their employment. Table 4 further showed that women of any migrant type are significantly less likely to be employed after migration. The disadvantageous labor market position of immigrant women relative to men has been documented before (see, for instance, Raijman & Semyonov 1997). One explanation for this is that women have different reasons for migrating than men. It is, for instance, conceivable that they migrate to extend their children's education or to raise their partner's income so that they themselves can focus on care duties, which can be assumed to be particularly prevalent after migration to a new country. Exploring these motifs and thereby looking into the broader implications of tied migration is a promising avenue for future research. In the course of this, it could further be interesting to consider indicators of job quality, such as type of occupation or hours worked.

Overall, this study documents that dynamics in couple's decision making process have far reaching consequences. Furthermore, it showed that this study's empirical evidence on the

employment consequences of tied, lead, and equal immigration can be contextualized within Mincer's (1978) tied migration theory, yet, merely when considering the entire sample. By contrast, when disaggregating the sample by gender, it becomes evident that, even when adding a gender-specific component to Mincer's ideas, further gender-specific processes between taking the decision to migrate and its consequences are at work that ultimately reinforce or mitigate the effect of decision-making. Such processes were previously not uncovered when analyzing internal migration. Yet, in international migration, family reunification and migration motifs might be such processes and are thus interesting avenues for future research.

Finally, descriptive evidence showed that relatively more women than men are tied migrants (34% of female vs. 24% of male respondents). Thus, there seems to be a gender imbalance in the selection into tied migration that is consistent with gender role theory. Specifically, the probability of being a tied migrant is greater for women; a result that is also consistent with previous studies (see, for instance, Bielby & Bielby, 1992; Shihadeh, 1991; Tenn, 2010). This cannot be further investigated in this study as it is limited in the sense that non-migrants are not observed. Still, it can be hypothesized that male tied as well as female lead migrants in this study are a selective sample of respondents.

Another limitation of this study is that I cannot observe return migration that might have occurred since immigration. Lead, tied, and equal migrants whose experiences in Germany did not live up to their expectations, might have returned to their country of origin before they could enter the migration samples of the SOEP. This would introduce a selection bias into the sample of migrants considered in this study that could potentially influence the results obtained. Looking at the subsample of respondents who immigrated to Germany after 2013 and whose return migration might hence be recorded by the SOEP, I find eight respondents to have left for another country. Three of those respondents are tied migrants, two are lead migrants and three are equal migrants, leaving it unclear how return migration might influence the results. Unfortunately, this cannot be further investigated given that the SOEP did not sample

individuals directly after their immigration but rather sampled migrants who were residing in Germany in 2013 and immigrated some time before. Finally, the SOEP only asks partnered adults to assess their role in the migration decision. By contrast, other family members such as children or parents and their potential impact are not assessed. Although the couple is the relevant unit for decision making in most families, this is not necessarily always true. However, this can unfortunately not be observed as part of this study.

Despite these limitations, this study's results still greatly advance the existing literature. This study is the first to depict decisions on international couple migration and their significance for employment. This approach uncovered highly interesting gender-specific dynamics that point to promising avenues for future research.

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CHAPTER 3

MIGRATION AND DYNAMICS IN WOMEN'S AND MEN'S DIVISION OF DOMESTIC WORK

Abstract

Objective: This study examines how men and women change domestic work hours following migration in the short-, medium- and long-run. Background: International migration of couples and families is rising. Still, there is no evidence on the domestic work division before and after migration. This is despite the fact that domestic work provides deep insights into family life and for migrants, is directly linked to popular narratives on traditionalism and barriers to integration and employment. Method: We use data from the German Socio-Economic Panel (SOEP) and apply fixed effects models to investigate how much time male and female partners spend on domestic work, including errands, housework, and repairs both before and after migration to Germany. Results: Women spent more time than men on domestic work before migrating to Germany. In the first years after migration, both genders reported a higher load of domestic work. This result is mainly driven by the number of errands, which increased markedly across migration. After seven years or more living in Germany, the load of domestic work returned to the pre-migration state. Conclusion: Migration, as a crucial life event, impacts the shared responsibilities of domestic work among male and female partners. Unlike other life events, migration only has a short-term impact on domestic work.

This chapter is joint work with Zerrin Salikutluk.

Acknowledgements: We thank Martin Kroh, Philipp Lersch, Jannes Jacobsen, Katja Schmidt, Claire Samtleben, Janina Steinert, Stephanie Heyne, and Adam Lederer for helpful comments on earlier versions of this article.

Today, around 272 million people do not live in their native country. Much of this emigration is motivated by individuals' desire to be close to their loved ones (IOM, 2019). In 2018, 2.1 million individuals migrated to OECD countries, either accompanying or reunifying with a family member. At the time, this inflow accounted for 40% of all permanent migration to the OECD (OECD, 2019). Ultimately, these numbers exemplify that many relationships and family lives are shaped by migration and its aftermath.

Migration has the power to fundamentally change an individual's life. Extensive previous scholarship shows that migration permanently imprints the working life and education of those affected, but to different degrees for men and women (Dustmann, 1994). Still, the significance of these changes at the individual level for migrants' family life is rarely studied. For instance, there is a lack of evidence on how couples' domestic work division responds to migration, even though domestic work is a key site for observing bargaining power, thus providing deep insights into family functioning (Gough & Killewald, 2011; Gupta, 2007). The division of domestic work is further especially noteworthy for immigrant families, as it is closely intertwined with popular narratives on traditionalism and barriers to integration and employment. Based on theoretical notions, migration can indeed be expected to affect couples' division of labor by causing additional chores and shifts in individuals' economic resources and cultural surroundings (Krieger, 2020; Read, 2004).

Still, empirical insights into mobility and domestic work are limited to analyses of residential relocations. Specifically, Vidal, Perales, & Baxter (2016) found that short- and long-distance relocations in Australia widen gaps in domestic work hours between male and female partners. Yet, this evidence cannot necessarily be transferred to the reality of international migrants. Immigration exposes individuals to new social, legal, and cultural environments, where perceptions of gender and their manifestation in laws and institutions can substantially differ from migrants' source countries (Blau, Kahn, & Papps, 2011). Further, each labor market

places unique demands on job seekers, especially regarding language skills and educational qualifications (Dustmann, 1994). Due to these requirements, international migrants often first incur serious employment and earnings losses, which do not occur to the same extent after residential relocations (Krieger, 2020). Finally, moving to another country influences individuals' likelihood to outsource work, first, by granting or restricting access to technologies and, second, by shifting their position within the income distribution, thereby affecting their ability to afford domestic aid (D. Schneider & Hastings, 2017). Thus, international compared to internal migration can introduce unique dynamics to the mobility experience. This study's goal is to explore these dynamics and their effect on men's and women's domestic work. Therefore, it bridges the literature on domestic work and migration, aiming to provide new insights into the lives of women and men both before and after migration.

To accomplish this, we use data on 502 heterosexual, immigrant couples who arrived in Germany between 1994 and 2016 from the German Socio-Economic Panel (SOEP) (Giesselmann et al., 2019). Given that Germany is a major recipient of migrants from around the world and that it currently hosts the most immigrants in Europe (IOM, 2019), it constitutes a relevant test case. Using SOEP data has unique analytical benefits as it contains reports on respondents' pre-migration time use, allowing for analyses of changes in domestic work across migration. Additionally, SOEP data provides separate accounts of time use for each partner as well as a rich set of (migrant-specific) covariates. Thus, we estimate gender-specific fixed effects regressions with respondents' overall time spent on domestic labor and on three specific domestic tasks (errands, housework, and repairs) as dependent variables. In this way, we compare gender differences in domestic work hours before and after migration. In the post-migration stage, we further distinguish short-, medium-, and long-term dynamics in couples' domestic work following migration. Note that, for simplicity, we refer to couples as "male partners" and "female partners".

We start by providing a short overview of the German institutional context. In the following sections, we compile our theoretical framework based on literature examining how couples divide household chores in general and how migration can be expected to reshape these patterns. We introduce the SOEP data and our analytic strategy before presenting our results. We finish with the discussion of the results.

Background: Immigration and Domestic Work in Germany

This study considers immigrants who entered Germany between 1994 and 2016. After the breakup of the Soviet Union at the beginning of the 1990s, migration to Germany was largely dominated by the arrival of ethnic German repatriates. Ethnic German repatriates are foreign-born immigrants of German descent, who used to live in the Eastern Bloc as ethnic minorities. The Federal Expellees Act granted them German citizenship and integrative help, including language classes and lessons on German history and culture (Kalter & Kogan, 2014). For other migrant groups, integrative assistance was only institutionalized in 2005 (J. Schneider, 2007). At that time and throughout the 2000s, most immigrants arrived from European Union members, employing its freedom of movement. However, migrants from third countries, most prominently from Turkey and Russia, also continued to arrive (Krieger, 2020).

Regardless of the geographic context, women spend more time on domestic work than men (Coltrane, 2000). Still, with their arrival in Germany, migrants enter a setting where being female is comparatively strongly associated with doing domestic work: in Germany, 70-80% of women, but only 30% of men, usually or always cook and clean (Hofäcker, Stoilova, & Riebling, 2013). This is despite the fact that Germany experienced drastic structural changes over the past decades, including the stark rise of female employment from 60% in 1992 to 80% in 2016. However, this rise is only marginally reflected in Germany's gender domestic work gap: between 1992 and 2012, women reduced their time spent on cooking, cleaning, and

laundry from a daily average of 3 to 2 hours, whereas men's involvement only rose from 35 to 52 minutes per day over the same period (Samtleben, 2019). Among other things, these dynamics can be ascribed to Germany's conservative, family-oriented welfare state, which is, for instance, characterized by a low supply of public childcare and tax benefits for couples in which one partner works reduced hours (Hofäcker et al., 2013). In fact, 22% of employed women in Germany work part-time, which is high in international comparison (OECD, 2018).

Theoretical Background

Couples' Division of Domestic Work over the Life Course

Domestic work refers to unpaid work, which is typically carried out within the household or family. Although domestic work theoretically entails activities such as caring for and helping household members – that is, childcare or support for persons in need of care – it is often more narrowly defined in terms of tasks that every household confronts. Prominent examples include running errands, cleaning, cooking, or making repairs (Coltrane, 2000).

Neoclassical human capital theory sees the domestic work division of couples as the result of a recurring, rational process in which partners jointly choose an efficient allocation of their time to maximize household utility (Becker, 1985). Time is efficiently allocated when it reflects individuals' productivity in paid versus unpaid work. If, for instance, one partner's potential labor market earnings significantly exceed the other partner's, it is efficient for the former to spend more time in the market than in the domestic sphere. Thus, according to neoclassical theory, the division of domestic work is gender-neutral in that it is solely governed by partners' relative productivities (Coltrane, 2000; Dribe & Stanfors, 2009; Leopold & Skopek, 2015). However, neoclassical theory is frequently criticized for assuming that partners pursue maximizing their joint utility as a common goal (Bielby & Bielby, 1992). *Bargaining theory* relaxes this assumption by viewing household decisions as negotiations between

partners with heterogeneous interests (Blood & Wolfe, 1965; Lundberg & Pollak, 1996). The theory further argues that the negotiation result will reflect the preferences of the partner with more bargaining power derived from economic resources such as earnings, occupational status, or education, and their value in the event of non-cooperation in the relationship or separation. Given that domestic work is commonly considered unpleasant, individuals with more bargaining power will usually have a preference for having their partners carry out the chores (Davis & Greenstein, 2004; Evertsson & Nermo, 2004, 2007). In the extreme case of economic dependence, individuals accept any division of domestic work their partner asks for (Blair & Lichter, 1991; Brines, 1994). Like the human capital approach, bargaining theory postulates that couples' decision-making is guided by the resources partners bring into the relationship. Studies support these gender-neutral ideas for specific moments in individuals' lives (Bittman, England, Folbre, Sayer, & Matheson, 2003; Brayfield, 1992; Pittman & Blanchard, 1996).

In contrast, *gender perspectives* consider couples' division of domestic work an expression of normative ideas of gender. Initially, gender perspectives primarily focused on socialization and the resulting internalized gender role ideologies regarding the implications of one's sex (Bianchi, Milkie, Sayer, & Robinson, 2000; Greenstein, 2000). According to this view, traditional compared to egalitarian gender role ideologies will make female partners feel more obliged to manage household chores by themselves (Bittman et al., 2003; Cunningham, 2005). More recently, West & Zimmerman's (1987) 'doing gender' approach replaced notions of socialization. The 'doing gender' approach argues that individuals wish to appear as competent members of their sex and to avoid social rejection, thus making gender-appropriate behavior desirable in social interactions with others (Artis & Pavalko, 2003; D. Schneider, 2012; Voßemer & Heyne, 2019). This wish is particularly strong when interacting with the opposite rather than the same sex (Gupta, 2007). Hence, marriage and domestic work division constitute an important setting for 'doing gender'. By doing most chores, female partners can

underline their femininity (Baxter, Hewitt, & Haynes, 2008; Sayer, 2005). Indeed, previous studies find ideas of gender to be linked to time spent on domestic work at different points in individuals' lives (Blair & Lichter, 1991; Cunningham, 2005; Greenstein, 1996).

However, couples' division of household chores at one point in time is not necessarily representative of their entire relationship history. Instead, changes in female partners' resources can, for example, reduce their time spent on domestic work (Evertsson & Nermo, 2007). Further, the division of domestic work responds to life events. Previous studies, for instance, find retirement (Leopold & Skopek, 2015) and unemployment (Gough & Killewald, 2011) to narrow the gender care gap, whereas cohabitation (Gupta, 1999), parenthood (Dribe & Stanfors, 2009; Kühhirt, 2012), and residential relocations (Vidal et al., 2016) aggravate unequal distributions. Still, evidence on other decisive life events, such as immigration to another country, is missing. This study aims at filling this gap in the literature.

International Migration and Couples' Division of Domestic Work

Migration involves a number of additional household tasks that increase couples' amount of housework in the short-term: a new home needs furnishing, administrative matters need to be looked into, and migrant parents need to organize care for their children. Given migrants' common lack of cultural and linguistic knowledge, such tasks may take more time to accomplish than in the country of origin (Magdol, 2002; Vidal et al., 2016). This short-term increase in the amount of domestic work may further translate into the medium- and long-term: in their daily lives, many couples rely on their family's help to manage chores. After migration, such social networks are no longer available and financial resources might be too scarce to afford aid (Parrado, Flippen, & McQuiston, 2005). Previous research has shown that when couples' housework suddenly rises, for instance, because a child becomes sick, it is female partners, who take on the additional hours (Hochschild, 1989). Based on these findings, it is likely that the shouldering of additional work in migrant families will mostly fall on women.

Migration can further increase the burden of domestic work that female partners assume by diminishing their relative resources, thus increasing the share of household chores they are responsible for (Parrado et al., 2005). Immigrant men and women generally struggle

to access host countries' labor markets. This struggle is rooted in poor language skills, limited cultural knowledge, and restricted access to job-related information (Salikutluk, Giesecke, & Kroh, 2020). Beyond these general challenges, migrant women face additional disadvantages in host countries' labor markets (Fleischmann & Höhne, 2013; Raijman & Semyonov, 1997). For instance, even ten years after immigration, female migrants in Germany are less likely to be employed than males (Salikutluk, Giesecke, & Kroh, 2016). Additionally, female migrants are more likely to work part-time (Salikutluk et al., 2020).

These disadvantages can be attributed to processes underlying migration: Mincer (1978) first hypothesized that couples do not necessarily decide for migration because both partners expect to gain from it economically. Instead, he points out that migration could also occur because one partner – the so-called lead mover – expects large earnings-related gains from migration that outweigh expected losses of his or her partner - the so-called tied mover (Long, 1980). Typically, the group of lead movers is predominantly male, whereas women cluster among tied movers (Krieger, 2020; Mincer, 1978). Thus, women often migrate into labor markets with little use for their skills (Taylor, 2007). Even when migration decisions are reached jointly, female partners commonly migrate as dependents. Migrants' residence permits at entry profoundly shape their rights, such as their right to work or to claim welfare (Flippen, 2014). Such divergences in rights at entry permanently affect migrants' vocational success with grave disadvantages observed for family migrants compared to labor migrants (Kreisberg, 2019). Finally, women generally concentrate in a few occupations, like nursing and teaching. In many of these occupations, more so than in male-typed professions, country-specific knowledge, which is still limited in the immediate aftermath of migration, is essential (Raijman & Semyonov, 1997). These processes can lastingly hinder females' employment, thus diminishing their resources and weakening their negotiation basis relative to males.

Migration further exposes individuals to a new environment whose gender-related norms might deviate from source countries. Such exposure is assumed to have the potential to produce attitude changes in individuals, altering their ideas of gender-appropriate behavior (Reimers, 1985). Exposing female partners, who grew up in gender-conservative settings, to a liberal, gender-egalitarian environment can shift their preferences from traditional to egalitarian divisions of domestic work and open re-negotiations on chore responsibilities (Hondagneu-Sotelo, 1992; Parrado & Flippen, 2005). Still, it is equally conceivable that the exposure to a new setting causes the opposite: feelings of foreignness and exclusion can instead intensify migrants' desire to preserve their cultural heritage (Parrado & Flippen, 2005).

Like these theoretical insights, evidence on the cultural adaption of migrants is mixed (Read, 2004), illustrating the diversity of individual experiences as well as the difficulty of measuring 'culture'. For example, religiosity, a predictor of gender conservatism and traditional family life (Diehl, König, & Ruckdeschel, 2009), diminishes after migration (Massey & Higgins, 2011). By contrast, source countries' pre-migration societal dynamics, such as the prevalence of female employment, continue to influence immigrants, with influence growing over time (Blau et al., 2011). Considering that in the past two decades many migrants to Germany arrived from Poland, Russia, Romania, and Kazakhstan, where domestic work is as unevenly distributed between men and women as in Germany (Hofäcker et al., 2013), and Germany's environment where institutions urge traditional family life, migrants can be expected to maintain or adopt traditional divisions of domestic work.

These arguments suggest that *domestic work increases for migrant men and women after migration (Hypothesis 1)*. Considering migrant women's vocational disadvantages and Germany's institutions, *the increase in domestic work is greater for migrant women than for men (Hypothesis 2)*. Yet, *the increase in domestic work diminishes more for migrant women*

than for men with years since migration (Hypothesis 3), as the number of additional tasks, which women are expected to be mostly responsible for, successively decreases.

International Migration and Domestic Work Tasks

A second organizational feature of the domestic work division is the type of chores that each partner carries out (Blair & Lichter, 1991). Typically, female partners engage in cooking, cleaning, and errands, which mostly entail shopping for groceries prior to migration. On the other hand, male partners are more often responsible for gardening and repairs (Bianchi et al., 2000; Samtleben, 2019). Yet, after migration, chores may be redistributed in a way that challenges these gender stereotypical distributions. When immigrating to another country, the amount of each domestic activity – that is, of doing errands, housework, and repairs – increases substantially (Magdol, 2002). This increase may require both partners to become more involved in gender-atypical chores than before. In the months after migration, female partners might need to assist their male partners in arranging furniture and male partners might take on housework when their female partners are preoccupied with childcare. In the long-term, however, when couples have completed additional tasks caused by migration, their distribution of domestic activities should return to the pre-migration state.

Still, there are reasons to assume that male partners will do a greater share of errands after migration and that this behavior will at least persist into the medium-term. Specifically, the number of errands can be expected to increase markedly after migration as visits to the authorities and bureaucratic matters become more prevalent than pre-migration. As discussed before, male partners predominantly immigrate as principal migrants and female partners as their dependents (Flippen, 2014). Their status as principal migrants implies that male partners are the government's first contact person in official matters, such as when visits to the foreigners' registration or employment office are required. These administrative affairs will be

especially manifold in the beginning, but will also be necessary over the subsequent years. Once male partners have familiarized themselves with the authorities, their procedures, and their requirements after immigration, they can be expected to continue being responsible for this in the medium- to long-terms. Frequent contact with members of the host society, for instance, when visiting the authorities or talking with coworkers, which migrant men are also more likely to do (see above), further promotes language learning. Indeed, previous studies on immigrants in Germany show that men have better language skills at immigration and improve these more rapidly after immigration than women (Dustmann, 1994). Speaking the host country's language will enable male partners to run complex errands beyond shopping for groceries. Given that it takes female migrants significant time to acquire host country-specific human capital (Rebhun, 2008), male partners can be expected to be responsible for most errands, at least in the short- and medium-terms.

Overall, this section suggests that *migrant men and women carry out more gender-atypical chores than before migration (Hypothesis 4)*. *This gender-atypical behavior shows in the short-term for housework and repairs; persisting longer for errands (Hypothesis 5)*.

Methods

Data and Sample

We use data from the German Socio-Economic Panel (SOEP) to test the hypotheses. The SOEP is an annual household panel survey first carried out in 1984. Its respondents are interviewed on a diverse set of topics, including employment, education, children, and health (Giesselmann et al., 2019). For this study, we extract information from five waves of the IAB-SOEP Survey of Migrants, spanning 2014 through 2018 (SOEP v.35, DOI: 10.5684/soep.iab-soep-mig.2018). We do not consider the initial wave (2013) of the IAB-SOEP Survey of Migrants because information on this study's outcome measure was only collected starting in 2014. The

IAB-SOEP Survey of Migrants is generally representative of first-generation migrants who moved to Germany between 1995 and 2013, as well as second-generation immigrants resident in Germany (Kroh, Kühne, Goebel, & Preu, 2015; Kühne & Kroh, 2017). In addition to the standard repertoire of SOEP instruments, respondents of the IAB-SOEP Survey of Migrants answer migrant-specific questionnaire items covering their migration routes and circumstances prior to emigration (Giesselmann et al., 2019). In answering these questions, respondents can choose from multiple languages, including German, English, Turkish, Romanian, and Polish. As of 2019, a total of 7,661 individuals have responded to at least one wave.

Given this study's research questions, we focus on heterosexual, first-generation immigrant couples whose relationship started before emigration and lasted at least until their first SOEP interview (N = 1,442 respondents). Survey years in which couples are no longer liaised are dropped from the analysis. Couples in which either the male or female partner applied for asylum are excluded (N = 1,172). This is because previous research shows that refugees' experiences subsequent to immigration markedly differ from integration trajectories of other migrants (Kreisberg, 2019). We further restrict our sample to male and female partners who were 18 or older when migrating to Germany and are of working age (18 to 65 years old) when surveyed by the SOEP (N = 1,164). To ensure proper recollection of pre-migration circumstances, we only consider couples who immigrated less than twenty years before their first SOEP interview (N = 1,092). Finally, we do not allow for missing values on any variable for both partners (N = 1,050) and restrict the sample to couples with at least two observations per partner, one before and at least one after immigration (N = 1,004). In this way, we are able to study transitions in couples' division of labor across their immigration.

Overall, this study considers 1,004 individuals across 502 couples who arrived in Germany between 1994 and 2016 at ages 19 to 58. Respondents primarily come from other European states (55% of the sample), and mostly Poland and Romania, or from Post-Soviet

countries (35%). This reflects the general trends of Germany's immigration history. As already suggested by the literature, the sample thus spent comparable or more time on domestic work before migration than German women and men do (see Table A1).

Our analysis considers between two and six observations per respondent or couple (see Table 1). Although we only use five SOEP waves, there are up to six observations per individual/couple given that information on the year before immigration is retrospectively provided as part of the first, biographical, SOEP interview, which takes place up to twenty years after immigration. We run a robustness check with retrospective information provided at most ten years after immigration to Germany. Overall, we use 3,946 person/year observations.

Table 1. Number of observations per individual and couple

N (Observations)	N (Couples)	N (Individuals)	%	Cum. %
2	135	270	26.89	26.89
3	80	160	15.94	42.83
4	74	148	14.74	57.57
5	111	222	22.11	79.68
6	102	204	20.32	100
Total	502	1,004	100	100

Note: Data from IAB-SOEP Survey of Migrants, 2014 – 2018 (SOEP v. 35). The sample was constrained to a minimum of two observations per individual/couple.

Measures

Outcome variables. Since 2014, respondents of the IAB-SOEP Survey of Migrants are surveyed on their time use on an average weekday. Weekdays generally reflect daily lives (Hook, 2017) and therefore are particularly relevant units of analysis. Respondents report the number of hours they usually spend on seven different tasks, including employment, housework, and physical activities. A special feature of the survey is that first-time respondents provide details on their pre-migration time use. More specifically, the questionnaire item reads: "How many hours do you spend on the following activities per day on an average working day? And what about one year before moving to Germany?" (Kantar Public, 2019: 106). Thus,

interviewees report their typical time use before migration in retrospective. To construct the outcome measures, we combine this retrospective, pre-migration information with individuals' present, post-migration time use from years in which they participated in the SOEP survey. Hence, only respondents' time use pre-migration is retrospective information.

The list of activities for which respondents indicate their time use includes three domestic tasks. These are: (a) "Errands (shopping, trips to government agencies, etc.)", (b) "Housework (washing, cooking, cleaning)", and (c) "Repairs on and around the house, car repairs, garden work". In this study, we do not include childcare in our measure of domestic work, as previous research finds it to be subject to unique social dynamics. Whereas cooking, washing, and cleaning are widely recognized as unpleasant, most individuals experience childcare as gratifying and rewarding. Accordingly, since the 1970s, time spent on domestic chores has decreased, but time spent on childcare has markedly increased (Sullivan, 2013). Besides, to counter disproportionate effects of outliers, we winsorize them by recoding values higher than the 95th percentile to that percentile for each task (Gupta, 2007; Hook, 2017), before we calculate a summary measure. This measure records individuals' absolute involvement in domestic chores. We further consider individuals' time use on each task. We generally focus on absolute hours in domestic work because we are interested in changes in household production due to migration. In sensitivity analyses, we validate our results with a relative measure, i.e., the difference between female partners' and male partners' hours spent on domestic labor, and re-run regressions after trimming rather than winsorizing outliers.

Existing research consistently shows that stylized reports of time use are prone to over-reporting of time spent on household chores compared to time diary data. Rather than reflecting actual involvement in domestic tasks, survey items on time use appear to reflect perceptions of work (Juster, Ono, & Stafford, 2003; Kan, 2008). Thus, respondents' accounts of absolute hours in this study should be carefully interpreted and, crucially, be understood as upper bounds

(Kühhirt, 2012). In our analyses, fixed effects account for consistent over-reporting over time. But even if the degree of over-reporting varies over time, this should leave the estimates unbiased unless the measurement error is correlated with the migration event (Gough & Killewald, 2011). We deem this unlikely because migration, in contrast to, for instance, unemployment, does not create a situation in which over- or underreporting is socially desirable. Furthermore, separate regressions for male and female partners account for gender-specific over-reporting. Overall, the reports on time use utilized in this study can provide valuable insights into the changes in women's and men's division of work across migration.

Explanatory Variables. We focus on two explanatory variables. First, we create a dummy variable that we set to one for years following immigration to Germany and zero otherwise (0=pre-migration, 1=post-migration). Second, to investigate dynamic effects of migration on couples' division of housework, we create a categorical variable reflecting the years since migration. It distinguishes the pre-migration phase from three phases in the years after immigration (0=year before migration (*ref*), 1=1-3 years after migration, 2=4-6 years after migration, 3=more than 7 years after migration). Considering these three intervals following immigration allows for analyzing short-, medium- and long-term changes in couples' division of domestic work. Note that the last category spans immigration years 7 to 23.

Control Variables. As we use individual-level fixed effects regressions, we only include control variables that vary over time. We first include a categorical measure of respondents' age (0=18-27 years (*ref*), 1=28 – 37 years, 2=38 – 47 years, 4=48 – 57 years, 5=58 – 65 years) and their marital status (0=unmarried, 1=married). Furthermore, we account for the presence and age of children by considering the age of the youngest child (0=no children (below age 12) (*ref*), 1=youngest child 0–1 year, 2=youngest child 2–3 years, 3=youngest child 4–6 years, 4=youngest child 7–12 years). We also include a dummy variable indicating whether both

partners live in the same country in the survey year. In international migration, couples often do not emigrate jointly but sequentially (Krieger, 2020). To account for family reunification, we generate an indicator that we set to one in years in which partners do not reside in the same country and zero otherwise (0=partner in the same country, 1=partner abroad). We run a robustness check for excluding respondents with family reunification. Finally, we add survey year fixed effects to account for common shocks to the sample and historical changes over time, such as the evolution of gender attitudes.

We decide against including employment-related or migrant-specific variables because we assume that the effect of migration on couples' division of domestic work works through these channels. Still, we run a robustness check for including respondents' employment hours.

Methods

We employ fixed effects regressions to study changes in couples' division of housework across their immigration to Germany. Fixed effects models generally relate changes in the dependent variable to changes in independent variables. We specify our models as follows:

$$y_{ict} = \alpha + d_i + \eta_t + Mig_{it} + \beta_{it}X_{it} + \varepsilon_{ict} \quad (1)$$

where y_{ict} is a continuous variable recording the hours individual *i* of couple *c* spends at time *t* on domestic chores, α is a constant and d_i are individual fixed effects. Further, η_t are time fixed effects that control for common shocks to the sample. Mig_{it} are our key independent variables and, thus, is either a dummy variable distinguishing between the pre- and post-migration period or a categorical variable capturing short-, medium- and long-term dynamics of migration on couples' division of domestic work. Finally, we add the set of time-varying control variables (X_{it}) and cluster the error term, ε_{ict}, by the individual. To identify gender-specific dynamics, we run separate regressions for male and female respondents.

Table 2. Mean socio-economic characteristics of sample population

	All				Males		Females	
Variables	Min	Max	Mean	SD[a]	Mean	SD[a]	Mean	SD[a]
Outcome Variables								
Domestic Work (Hours)	0	15	3.33	2.94	2.80	3.04	3.86	2.73
Errands	0	8	1.44	2.29	1.43	2.48	1.45	2.08
Housework	0	4	1.27	1.24	0.65	0.81	1.90	1.28
Repairs	0	3	0.61	0.93	0.71	0.91	0.51	0.94
Explanatory Variables								
Immigration	0	1	.75	.43	.75	.44	.75	.44
Years since migration								
Before migration	0	1	.25	.44	.25	.44	.25	.44
1 – 3 years after migration	0	1	.10	.30	.09	.29	.11	.31
4 – 6 years after migration	0	1	.21	.40	.21	.40	.20	.40
+7 years after migration	0	1	.44	.50	.45	.50	.43	.50
Control Variables								
Age								
18 – 27 years	0	1	.11	.31	.08	.27	.14	.34
28 – 37 years	0	1	.33	.47	.32	.47	.35	.48
38 – 47 years	0	1	.31	.46	.32	.46	.30	.46
48 – 57 years	0	1	.18	.38	.20	.40	.15	.36
58 – 65 years	0	1	.07	.26	.09	.28	.06	.24
Married	0	1	.89	.31	.89	.31	.89	.31
Children								
No Children (below 12)	0	1	.49	.50	.48	.50	.48	.50
Youngest child 0-1 year	0	1	.12	.32	.12	.32	.12	.32
Youngest child 2-3 years	0	1	.11	.31	.11	.31	.11	.32
Youngest child 4-6 years	0	1	.12	.32	.12	.32	.11	.32
Youngest child 7-12 years	0	1	.18	.38	.17	.38	.18	.38
Partner abroad	0	1	.13	.34	.15	.37	.11	.31
N	1,004				502		502	

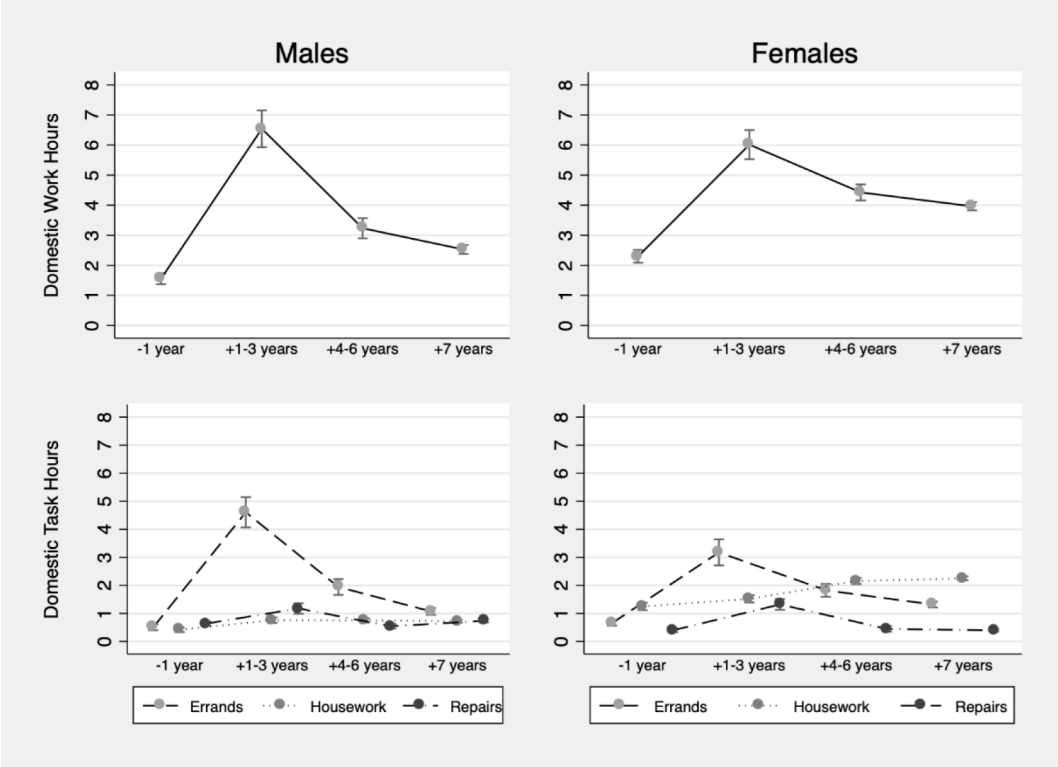
[a] SD = Standard deviation

Results

Figure 1 depicts the average hours spent on domestic work (tasks) before and after migration for men and women. In their home countries, women carried out more domestic work than men: on average, women spent 45 minutes more on various domestic activities than their

partners. Following immigration to Germany, the amount of time spent on chores increased drastically for both genders. Strikingly, this increase was larger for men than for women, which led to an inversion of the gender domestic work gap. In sum, during the first three years following immigration, men invested, on average, 32 minutes more on domestic activities compared to their female partners. After the initial years of arrival, the hours spent on chores decreased for all, although the reduction for men was larger than for women. Accordingly, after having lived in Germany for seven years or longer, couples' gender domestic work gap approximated its pre-migration state, amounting to around an hour and a half. Still, the time spent on domestic work by women almost doubled compared to before migration.

Figure 1. Average hours of domestic work by year since migration



Note: Means displayed with 95% confidence intervals.

Figure 1 additionally shows respondents' average time investments in three domestic chores (errands, housework, and repairs) both before and after immigrating to Germany, again, separately for men and women. Four features stand out. First, before migration, couples mostly

adopted gender-typical divisions of domestic activities with women doing, on average, more errands and housework and men being more involved in repairs. Second, the patterns observed for aggregate domestic work (top panels in Figure 1) largely mirrored task-specific changes across migration: independent of their gender, respondents' time spent on household tasks rose immediately following migration and slowly declined thereafter. An exception to this symmetry is the evolution of females' time spent on housework, which continued to rise after their arrival in Germany (-1 year=75 minutes; +1-3 years=91 minutes; +4-6 years=129 minutes; +7 years =135 minutes). Third, gender gaps in errands and repairs inverted after compared to before migration. During the initial years in Germany, men spent more time on errands than women, who, in turn, carried out more hours of repairs than men. Whereas the gender gap for repairs is small (9 minutes) and statistically insignificant, men spent around an hour and a half more on running errands than women after immigration. In contrast, the gender gap in housework shows that this sphere is clearly assigned to women across migration. Still, it also narrowed subsequent to migration before widening again from the fourth year after immigration onward. Finally, fourth, couples' division of domestic tasks returned to its pre-migration state in the long-term, from the seventh year after their arrival.

In the next step, we scrutinize our descriptive results with fixed effects models. Table 3 presents the effects for all respondents (Model 1 and 2), for males (Model 3 and 4) and females (Model 5 and 6). For each group, we estimate two models: first, the effects of migration on the number of hours for domestic work (Models 1, 3, and 5) and, second, the effects by years since arrival (Models 2, 4, and 6). Model 1 shows that with migration, the average hours used for domestic tasks rose by 5 hours and 28 minutes.

Table 3. Fixed effects regressions of changes in domestic work across migration

	All				Males				Females			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	5.47***	0.74			5.99***	0.30			4.88***	0.90		
YSM[a] (ref: -1 year)												
+1-3 years			4.75***	0.80			4.79***	0.29			4.38***	0.94
+4-6 years			2.29**	0.87			1.61**	0.57			2.52*	1.03
+7 years			1.71	0.91			0.89	0.71			2.11	1.09
Age (ref: 18-27 years)												
28-37 year	0.40	0.24	0.39	0.24	0.06	0.36	-0.14	0.36	0.57	0.32	0.66*	0.32
38-47 years	0.50	0.38	0.47	0.38	-0.11	0.57	-0.43	0.56	0.96	0.51	1.09*	0.51
48-57 years	0.75	0.52	0.60	0.51	0.11	0.75	-0.43	0.73	1.28	0.72	1.37	0.71
58-65 years	1.20	0.71	0.90	0.70	0.51	1.03	-0.30	0.99	1.79	0.97	1.80	0.96
Married	-0.93***	0.26	-0.73**	0.26	-1.07**	0.38	-0.77*	0.36	-0.86*	0.36	-0.72*	0.36
Children (ref: no child)												
Youngest child 0-1 year	0.44*	0.22	0.50*	0.22	0.10	0.30	0.15	0.30	0.87**	0.32	0.92**	0.31
Youngest child 2-3 years	-0.35	0.21	-0.28	0.21	-0.47	0.32	-0.39	0.31	-0.14	0.29	-0.07	0.29
Youngest child 4-6 years	0.17	0.22	0.15	0.21	0.13	0.31	0.13	0.30	0.26	0.32	0.23	0.31
Youngest child 7-12 years	0.12	0.18	0.15	0.18	-0.03	0.26	0.02	0.25	0.31	0.26	0.33	0.25
Partner abroad	-0.02	0.19	-0.02	0.20	0.21	0.27	0.18	0.27	-0.12	0.31	-0.11	0.31
Observations	3,945		3,945		1,973		1,973		1,972		1,972	
Individuals	1,004		1,004		502		502		502		502	
Adjusted-R^2	0.32		0.35		0.32		0.36		0.27		0.29	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

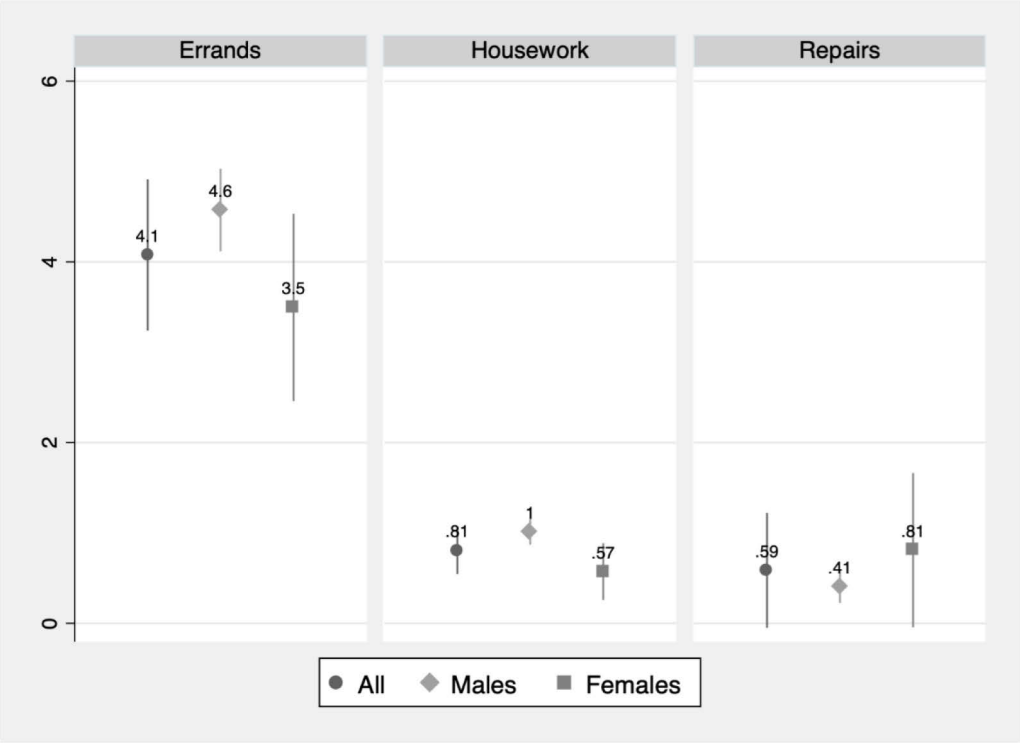
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

This result is in line with our first hypothesis (H1), assuming that the amount of domestic work will increase over migration. Gender-specific patterns detected in the descriptive results are also mirrored in Table 3. Contrary to hypothesis H2, the rise in the chores due to migration was larger for men than for women, although this difference is not significant (see Figure B1).

The increases in chores can be mostly attributed to the initial years after arrival: compared to the pre-migration state for men, the burden of domestic work increased by 4.79 hours at that time; for women, by 4.38 hours. Thereafter, the number of chores still exceeded its pre-migration level, yet, to a lesser extent. As Table 3 illustrates, this decrease was sharper for male than for female migrants, though this difference is again not significant (see Figure B2). Hence, in contrast to our third hypothesis (H3), the gender care gap narrowed after migration and returned to its pre-migration size in the medium-term, widening with time. We estimated a set of robustness checks. The results hold when we (1) consider a relative measure of the division of domestic work, (2) exclude family reunification, (3) trim instead of winsorize outliers, (4) control for employment hours, and (5) only consider pre-migration information provided up to ten years after immigration (see Tables S1, S3, S7, S11, and S15).

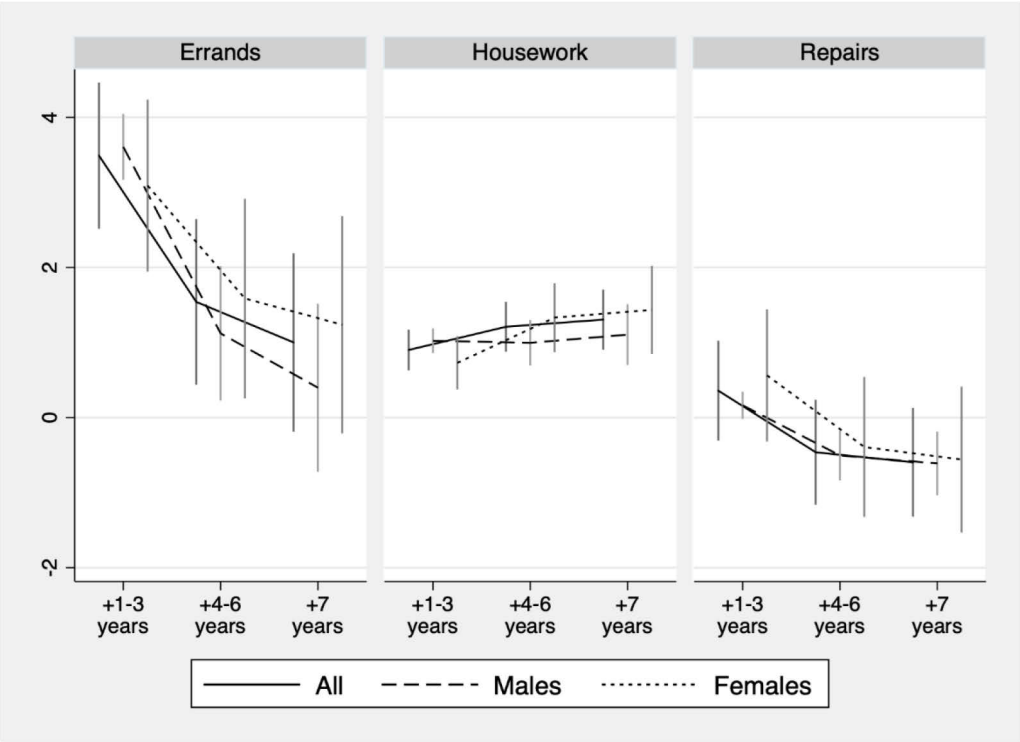
Figures 2 and 3 depict task-specific changes across migration. First, Figure 2 demonstrates that with migration, the amount of time spent on each domestic task rose. This increase was particularly pronounced for errands: after immigrating to Germany, men ran errands for 4.6 hours more and women for 3.5 hours more than before migration. Although the difference in time spent on errands between men and women is positive, it is insignificant, providing limited evidence for our fourth hypotheses (H4). This reverse pattern also shows for repairs in which women invested more time than their male partners compared to before emigration, but is insignificant. Finally, hours spent on housework increased by an hour for males and by 34 minutes for females. Overall, there are gender-atypical patterns in the division of tasks after migration. As they are statistically not significant, we reject hypothesis H4.

Figure 2. Changes in domestic activities across migration



Note: Estimates displayed with 95% confidence interval. The figure shows estimates conditional on covariates from Tables A2 and A3.

Figure 3. Changes in domestic activities across years since migration



Note: Estimates displayed with 95% confidence interval. The figure shows estimates conditional on covariates from Tables A2 and A4.

Figure 3 displays respondents' time use in the short-, medium- and long-term following their arrival in Germany. First, the figure indicates that the burden of errands increased markedly in the short run. Thereafter, immigrant men and women successively spent less time on errands, with this decrease being starker for males than for females but insignificantly so. A similar pattern shows for repairs: time invested in repairs increased in the first three years after migration, then declined from the fourth year onward when respondents did fewer repairs than before their emigration. This pattern hints at the fact that the year before emigration was already subject to pre-migration adjustment patterns in which individuals prepared to move to Germany. Finally, the amount of housework slightly rose over time for migrant men and women, which contradicts our fifth hypothesis (H5).

Again, we find that these results are robust, when we (1) consider a relative measure of domestic work division, (2) exclude family reunification, (3) trim outliers, (4) control for employment hours, and (5) only consider pre-migration information provided up to ten years after immigration (see Tables S2, S4, S5, S6, S8, S9, S10, S12, S13, S14, S16, S17, and S18).

Discussion

Today, migration is a common experience for couples and families around the world (IOM, 2019). Still, research mostly focuses on the significance of migration for individuals. In contrast, little is known about the effects of migration on family life. Specifically, there is no evidence on how migration affects couples' division of chores. This is despite the fact that domestic work provides deep insights into family life and for migrants, is directly linked to narratives on barriers to integration. Hence, this study tackles this gap in the academic literature by uniting theoretical arguments on couples' domestic work and migration.

We have three key findings. First, we show that, with migration, couples' volume of domestic work rises significantly, by almost 6 hours on an average weekday. Compared to

previous insights on the effect of short- and long-distance residential relocations on time spent on housework in Australia (Vidal et al., 2016), this estimate is extensive, illustrating the disruptive nature of international migration for family life. Leading from this insight, one interesting avenue for future research is to investigate potential feedback effects of these profound changes on partners' relationship quality and mental well-being. Our results further reveal that the increase in domestic work is mostly felt immediately after immigration to Germany. In the medium- to long-term, the burden slowly eases until it insignificantly differs from the pre-migration state from the seventh year after immigration onward. This result is in line with empirical evidence on residential relocations and theoretical expectations: it points to the significant amount of additional chores that arises due to migration but diminishes as families slowly settle into their new lives. Accordingly, migration, in contrast to other life-course events, such as retirement, influences couples only in the short-term. Policies aiming to ease migrants' lives should accordingly be targeted to the years following immigration.

Second, we find that men's and women's involvement in domestic work equally responds to migration. Men spend 5.99 hours more on domestic work after migration compared to before, the increase amounts to 4.88 hours for females. This contradicts our hypotheses. Based on lower employment among immigrant women and the German institutional setting, we argued that women would have less bargaining power and, thus, that migration would more severely increase their domestic work. Hence, this result illustrates that conventional explanations of couples' division of labor cannot fully grasp the unique experience of migration. Besides, this result deconstructs popular narratives around rising traditionalism among immigrant families by showing that both partners heavily invest in rebuilding their lives in Germany, leaving the gender gap in domestic work statistically unchanged.

Third, our results indicate that the large increase in domestic work after migration is mostly due to errands, which increase by one hour more for migrant men than women, though

this difference is statistically insignificant. In contrast, housework and repairs only increase slightly after immigration, showing no notable gender differences in terms of estimate size. One possible explanation for this finding suggested by the migration literature is that errands are differently composed post- compared to pre-migration. Whereas in the country of origin, errands mostly entail shopping for groceries, common errands in host countries are visits to the authorities and bureaucratic matters. Given that men frequently immigrate as principal migrants and, on average, have better language skills than immigrant women, they might be better suited to run such errands in host countries. Yet, these dynamics could have severe consequences for women's bargaining power: since errands are run outside the home and for migrants, will entail crucial activities, such as visits to the authorities, these dynamics might bring women into a position of dependence on their partners, diminishing their bargaining power in future decisions and limiting their interaction with the native society to specific domains. Thus, in future research on migrants' domestic work, it would be highly useful to be able to compare the exact content of pre- and post-migration chores and errands to further investigate this explanation. Therefore, the activities included in time use scales would need to be further disaggregated and thereby tailored to the immigrant experience. Ultimately, this disaggregation would allow for deeper insights into the implications of the division of domestic tasks on immigrant partners' bargaining power.

Together, these three results thus show that conventional explanations on the division of domestic work need to be interacted with insights on migration in order to grasp the unique experience of immigrating to another country. On the one hand, these conclusions should be applicable beyond the context of Germany since this study's sample of migrants mostly comes from Poland, Romania, Kazakhstan, and Russia. Migrants from these countries are also resident in many other countries (IOM, 2019). Still, Germany's conservative welfare state sets particular incentives for domestic work division, which are not necessarily present elsewhere.

Besides, the estimates in this study should generally be seen as conservative and, therefore, lower bounds for two reasons. First, the SOEP data only provides information on time use in the year prior to migration. Given that emigrating from one's home country is a major event that involves numerous additional tasks, it can be expected that the number of chores was already heightened in the year before migration. Second, we do not observe couples directly after migration but only at their first SOEP interview, which, in our study, can be up to 20 years apart. In the meantime, couples, which were particularly unhappy with their division of chores after migration might have already split up and are not considered in our study. The SOEP's sampling strategy further implies that couples' reports on their time use before migration are retrospectively provided. Accordingly, these reports might be clouded by experiences made since immigration. Therefore, we run a robustness check excluding reports, which concern a time more than ten years before the first SOEP interview. These sensitivity analyses leave the estimates largely unchanged in their direction and significance but increases their size. This increase can be attributed to the fact that the sensitivity analyses focus on migrants, whose immigration is shorter away in time compared to the migrant sample of the main specification. Hence, the increase in estimate size is theoretically expected. Therefore, the sensitivity analysis lends to the viability of using retrospective, pre-migration information.

Overall, this study tackles an overlooked topic in family and migration research and delivers evidence on couples' division of domestic work following this life-changing decision. The findings demonstrate that, contrary to other dimensions of life, migration leaves a short-term but profound impact on both partners' time spent on domestic work.

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Appendix A

Table A1. Average domestic work hours before migration by region of origin

	Males		Females	
	Mean	SD [a]	Mean	SD [a]
EU-28	1.26	1.81	1.62	2.03
Post-Soviet countries	1.96	2.00	3.36	2.71
Rest of the world	1.89	3.02	2.66	2.42
N	502		502	

[a] SD = Standard deviation

Table A2. Fixed effects regressions of changes in domestic tasks work across migration, all respondents

	Errands				Housework				Repairs			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	4.08***	0.43			0.81***	0.13			0.59	0.32		
YSM[a] (ref: -1 year)												
+1-3 years			3.49***	0.50			0.90***	0.14			0.36	0.34
+4-6 years			1.54**	0.56			1.21***	0.17			-0.46	0.36
+7 years			1.00	0.61			1.30***	0.20			-0.60	0.37
Age (ref: 18-27 years)												
28-37 year	0.42*	0.18	0.42*	0.18	0.06	0.10	0.06	0.10	-0.08	0.08	-0.08	0.08
38-47 years	0.59*	0.29	0.57*	0.29	0.00	0.14	0.00	0.14	-0.09	0.13	-0.10	0.12
48-57 years	0.95*	0.41	0.84*	0.40	-0.13	0.18	-0.11	0.18	-0.07	0.17	-0.13	0.17
58-65 years	1.57**	0.54	1.34*	0.54	-0.21	0.25	-0.17	0.25	-0.17	0.23	-0.27	0.22
Married	-0.57**	0.20	-0.41*	0.19	-0.11	0.10	-0.14	0.10	-0.25**	0.08	-0.18*	0.08
Children (ref: no child)												
Youngest child 0-1 year	0.26	0.17	0.30	0.16	-0.03	0.09	-0.03	0.09	0.21**	0.07	0.23***	0.06
Youngest child 2-3 years	-0.37*	0.15	-0.32*	0.15	-0.05	0.08	-0.06	0.08	0.07	0.07	0.10	0.07
Youngest child 4-6 years	0.09	0.16	0.08	0.16	-0.16*	0.08	-0.16*	0.08	0.24***	0.07	0.23***	0.07
Youngest child 7-12 years	-0.01	0.13	0.02	0.13	-0.04	0.07	-0.04	0.07	0.16**	0.06	0.17**	0.06
Partner abroad	0.19	0.14	0.18	0.14	-0.22**	0.08	-0.22**	0.08	0.01	0.06	0.01	0.06
Observations	3,945		3,945		3,945		3,945		3,945		3,945	
Individuals	1,004		1,004		1,004		1,004		1,004		1,004	
Adjusted R2	0.27		0.30		0.51		0.51		0.24		0.27	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* p < 0.1, ** p < 0.05, *** p < 0.01.

Table A3. Fixed effects regressions of gender-specific changes in domestic tasks work across migration, all respondents

	Errands				Housework				Repairs			
	Males		Females		Males		Females		Males		Females	
Migration	4.57***	0.23	3.50***	0.53	1.01***	0.07	0.57***	0.16	0.41***	0.09	0.81	0.43
Age (ref: 18-27 years)												
28-37 year	0.22	0.28	0.58*	0.23	-0.14	0.12	0.12	0.15	-0.02	0.12	-0.13	0.11
38-47 years	0.20	0.44	0.92*	0.39	-0.35*	0.17	0.24	0.21	0.04	0.18	-0.19	0.17
48-57 years	0.48	0.60	1.35*	0.55	-0.40	0.22	0.05	0.28	0.03	0.24	-0.12	0.25
58-65 years	0.99	0.80	2.12**	0.72	-0.51	0.29	0.01	0.40	0.03	0.32	-0.35	0.32
Married	-0.67*	0.28	-0.49	0.28	-0.22	0.12	0.01	0.15	-0.17	0.11	-0.38***	0.11
Children (ref: no child)												
Youngest child 0-1 year	0.02	0.23	0.50*	0.24	-0.02	0.09	0.02	-0.02	0.10	0.09	0.35***	0.09
Youngest child 2-3 years	-0.42	0.23	-0.32	0.21	-0.05	0.10	0.01	-0.05	-0.00	0.09	0.17	0.10
Youngest child 4-6 years	0.19	0.23	-0.01	0.23	-0.09	0.09	-0.20	-0.09	0.03	0.10	0.48***	0.10
Youngest child 7-12 years	-0.06	0.19	0.02	0.19	-0.00	0.08	-0.03	-0.00	0.04	0.09	0.32***	0.08
Partner abroad	0.21	0.20	-0.01	0.22	-0.07	0.09	-0.12	-0.07	0.08	0.08	0.01	0.09
Observations	1,973		1,972		1,973		1,972		1,973		1,972	
Individuals	502		502		502		502		502		502	
Adjusted R2	0.33		0.20		0.27		0.41		0.25		0.23	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A4. Fixed effects regressions of gender-specific changes in domestic tasks work across years since migration, all respondents

	Errands				Housework				Repairs			
	Males		Females		Males		Females		Males		Females	
YSM[a] (ref: -1 year)												
+1-3 years	3.61***	0.22	3.09***	0.58	1.02***	0.08	0.73***	0.18	0.16	0.09	0.56	0.45
+4-6 years	1.12*	0.45	1.59*	0.68	1.00***	0.15	1.33***	0.23	-0.51**	0.17	-0.39	0.47
+7 years	0.40	0.57	1.24	0.74	1.10***	0.21	1.43***	0.30	-0.61**	0.22	-0.56	0.49
Age (ref: 18-27 years)												
28-37 year	0.06	0.27	0.66**	0.23	-0.14	0.12	0.09	0.14	-0.06	0.12	-0.08	0.10
38-47 years	-0.05	0.43	1.02**	0.39	-0.35*	0.17	0.20	0.21	-0.03	0.18	-0.13	0.17
48-57 years	0.06	0.58	1.43**	0.54	-0.41	0.22	0.03	0.28	-0.09	0.24	-0.08	0.24
58-65 years	0.36	0.78	2.13**	0.71	-0.52	0.28	0.01	0.40	-0.14	0.31	-0.34	0.30
Married	-0.44	0.27	-0.37	0.27	-0.22	0.12	-0.04	0.15	-0.11	0.11	-0.31**	0.11
Children (ref: no child)												
Youngest child 0-1 year	0.06	0.23	0.54*	0.23	-0.02	0.09	-0.00	0.14	0.11	0.09	0.37***	0.09
Youngest child 2-3 years	-0.36	0.22	-0.26	0.20	-0.05	0.10	-0.01	0.13	0.01	0.09	0.20*	0.10
Youngest child 4-6 years	0.20	0.22	-0.04	0.22	-0.10	0.09	-0.19	0.13	0.03	0.09	0.47***	0.10
Youngest child 7-12 years	-0.02	0.18	0.04	0.18	-0.00	0.08	-0.04	0.11	0.05	0.08	0.33***	0.08
Partner abroad	0.18	0.20	-0.01	0.22	-0.07	0.09	-0.12	0.12	0.07	0.08	0.02	0.09
Observations	1,973		1,972		1,973		1,972		1,973		1,972	
Individuals	502		502		502		502		502		502	
Adjusted R2	0.37		0.22		0.27		0.42		0.27		0.27	

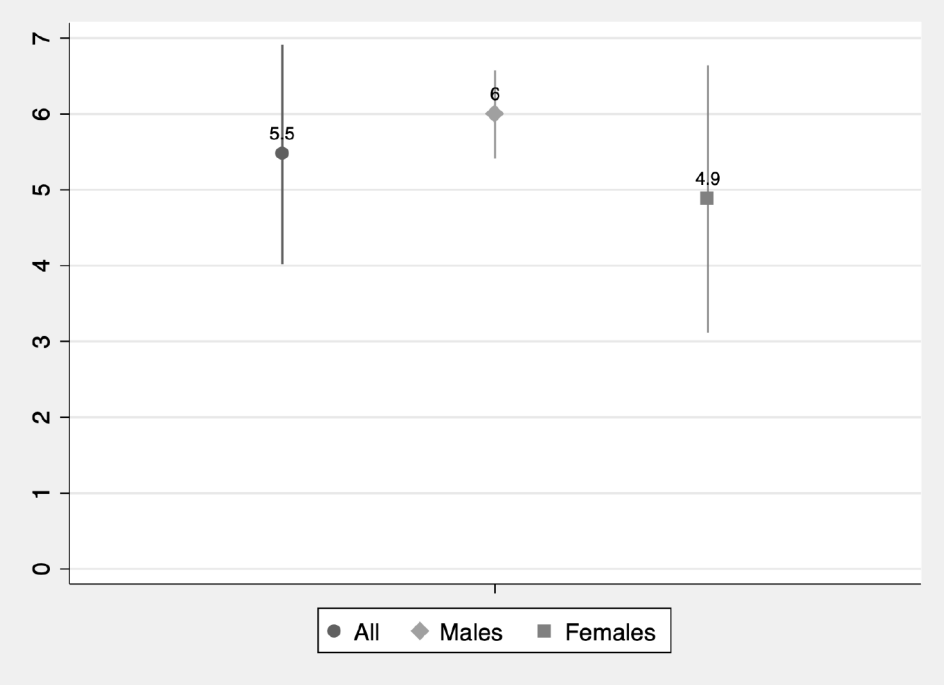
Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

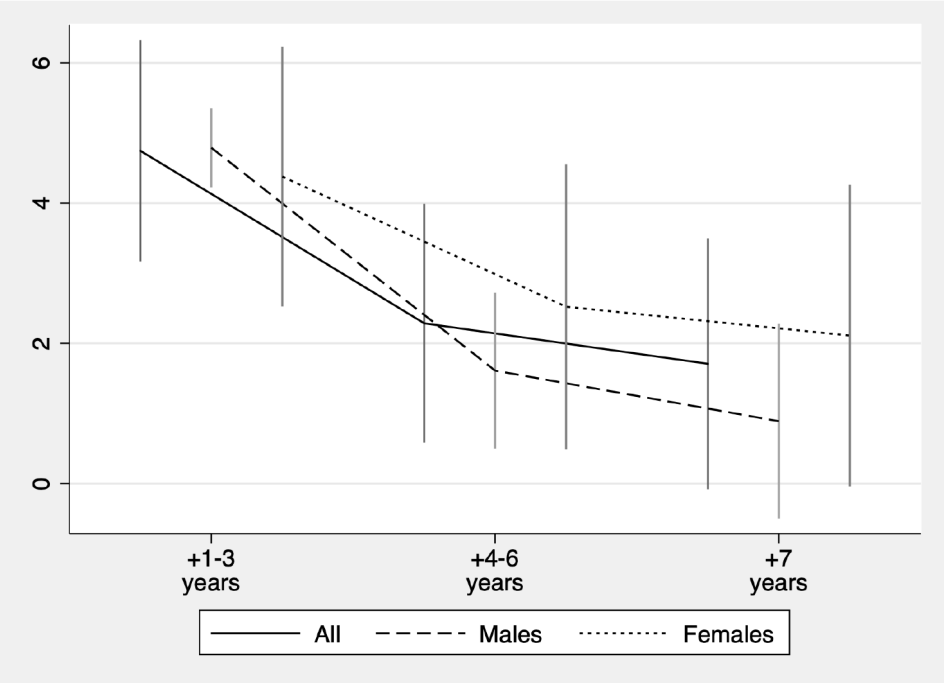
Appendix B

Figure B1. Changes in domestic work across migration



Note: Estimates displayed with 95% confidence interval. The figure shows estimates conditional on covariates from Table 3.

Figure B2. Changes in domestic work across years since migration



Note: Estimates displayed with 95% confidence interval. The figure shows estimates conditional on covariates from Table 3.

Supplementary Material

Table S1. Fixed effects regressions of changes in gender domestic work gap across migration

	(1)		(2)	
Migration	0.84	1.51		
YSM[a] (ref: -1 year)			1.18	1.47
+1-3 years			2.40	1.55
+4-6 years			2.71	1.61
+7 years				
Age (ref: 18-27 years)				
28-37 year	1.00**	0.36	0.94**	0.36
38-47 years	1.59**	0.56	1.50**	0.56
48-57 years	1.82*	0.80	1.76*	0.80
58-65 years	2.38*	1.08	2.37*	1.08
Married	-0.01	0.35	-0.10	0.35
Children (ref: no child)				
Youngest child 0-1 year	0.67*	0.31	0.64*	0.31
Youngest child 2-3 years	0.35	0.33	0.31	0.33
Youngest child 4-6 years	0.08	0.32	0.10	0.32
Youngest child 7-12 years	0.27	0.27	0.26	0.27
Partner abroad	-0.32	0.35	-0.32	0.35
Observations	1,972		1,972	
Couples	502		502	
Adjusted R2	0.20		0.21	

Note: Standard errors clustered by couple. All models include individual and survey year fixed effects.
[a] YSM refers to years since migration.
* p < 0.1, ** p < 0.05, *** p < 0.01.

Table S2. Fixed effects regressions of changes in gender gap in domestic work tasks across migration

	Errands				Housework				Repairs			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	-0.00	0.93			0.10	0.20			0.74	0.55		
YSM[a] (ref: -1 year)												
+1-3 years			0.30	0.89			0.23	0.19			0.65	0.56
+4-6 years			1.33	0.97			0.73**	0.28			0.34	0.58
+7 years			1.69	1.01			0.80*	0.36			0.23	0.60
Age (ref: 18-27 years)												
28-37 year	0.88**	0.28	0.83**	0.28	0.25	0.16	0.22	0.16	-0.13	0.11	-0.11	0.11
38-47 years	1.34**	0.45	1.27**	0.45	0.51*	0.24	0.48*	0.24	-0.27	0.15	-0.25	0.15
48-57 years	1.57*	0.64	1.52*	0.64	0.47	0.33	0.45	0.33	-0.22	0.21	-0.21	0.21
58-65 years	2.18*	0.85	2.16*	0.84	0.63	0.46	0.62	0.46	-0.42	0.28	-0.42	0.28
Married	0.00	0.27	-0.07	0.26	0.24	0.16	0.20	0.16	-0.25*	0.10	-0.23*	0.11
Children (ref: no child)												
Youngest child 0-1 year	0.42	0.22	0.39	0.23	0.03	0.15	0.01	0.15	0.23*	0.09	0.24*	0.09
Youngest child 2-3 years	0.06	0.23	0.02	0.23	0.12	0.15	0.10	0.15	0.18	0.10	0.19	0.10
Youngest child 4-6 years	-0.32	0.24	-0.31	0.24	-0.11	0.15	-0.10	0.15	0.51***	0.10	0.50***	0.10
Youngest child 7-12 years	-0.05	0.19	-0.06	0.19	0.01	0.13	-0.00	0.13	0.32***	0.09	0.32***	0.09
Partner abroad	-0.05	0.27	-0.06	0.27	-0.26	0.14	-0.27	0.14	-0.00	0.10	-0.00	0.10
Observations	1,972		1,972		1,972		1,972		1,972		1,972	
Couples	502		502		502		502		502		502	
Adjusted R2	0.15		0.16		0.37		0.37		0.23		0.23	

Note: Standard errors clustered by couple. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* p < 0.1, ** p < 0.05, *** p < 0.01.

Table S3. Fixed effects regressions of changes in domestic work across migration, excluding family reunification

	All				Males				Females			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	5.01***	0.24			5.71***	0.35			4.32***	0.30		
YSM[a] (ref: -1 year)												
+1-3 years			4.07***	0.23			4.55***	0.33			3.54***	0.30
+4-6 years			1.50**	0.45			1.50*	0.67			1.33*	0.60
+7 years			0.91	0.54			0.75	0.83			0.90	0.69
Age (ref: 18-27 years)												
28-37 year	0.31	0.26	0.29	0.26	-0.20	0.42	-0.44	0.41	0.64	0.33	0.76*	0.34
38-47 years	0.68	0.43	0.65	0.43	-0.19	0.67	-0.60	0.65	1.44*	0.56	1.68**	0.55
48-57 years	1.08	0.57	0.91	0.55	0.05	0.85	-0.62	0.81	2.18**	0.75	2.38**	0.74
58-65 years	1.85*	0.79	1.55*	0.76	0.78	1.14	-0.19	1.08	2.87**	1.05	3.05**	1.04
Married	-0.89**	0.34	-0.62	0.33	-1.16*	0.50	-0.85	0.47	-0.56	0.43	-0.32	0.43
Children (ref: no child)												
Youngest child 0-1 year	0.46	0.26	0.55*	0.25	0.16	0.36	0.29	0.35	0.82*	0.37	0.89*	0.36
Youngest child 2-3 years	-0.53*	0.25	-0.42	0.25	-0.59	0.38	-0.43	0.37	-0.39	0.33	-0.30	0.32
Youngest child 4-6 years	0.15	0.28	0.16	0.27	0.15	0.41	0.21	0.40	0.20	0.38	0.19	0.37
Youngest child 7-12 years	0.10	0.22	0.17	0.21	-0.12	0.32	-0.02	0.30	0.39	0.30	0.44	0.29
Observations	2,890		2,890		1,445		1,445		1,445		1,445	
Individuals	722		722		361		361		361		361	
Adjusted R2	0.32		0.35		0.31		0.35		0.28		0.30	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table S4. Fixed effects regressions of changes in domestic tasks work across migration, excluding family reunification

	Errands				Housework				Repairs			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	3.42***	0.26			0.95***	0.19			0.64***	0.08		
YSM[a] (ref: -1 year)												
+1-3 years			2.66***	0.25			1.08***	0.20			0.32***	0.08
+4-6 years			0.62	0.40			1.45***	0.24			-0.58***	0.15
+7 years			0.12	0.46			1.52***	0.27			-0.73***	0.18
Age (ref: 18-27 years)												
28-37 year	0.47*	0.20	0.46*	0.20	-0.02	0.11	-0.02	0.11	-0.14	0.09	-0.15	0.09
38-47 years	0.95**	0.32	0.93**	0.32	-0.12	0.16	-0.11	0.16	-0.16	0.15	-0.17	0.15
48-57 years	1.47**	0.45	1.33**	0.44	-0.28	0.21	-0.26	0.21	-0.11	0.20	-0.17	0.20
58-65 years	2.29***	0.60	2.05***	0.59	-0.30	0.29	-0.26	0.29	-0.14	0.27	-0.25	0.26
Married	-0.42	0.25	-0.21	0.24	-0.19	0.12	-0.22	0.12	-0.28**	0.10	-0.19	0.10
Children (ref: no child)												
Youngest child 0-1 year	0.26	0.21	0.33	0.20	0.06	0.10	0.04	0.10	0.15	0.08	0.18*	0.08
Youngest child 2-3 years	-0.51**	0.18	-0.42*	0.18	-0.02	0.10	-0.03	0.10	-0.01	0.09	0.03	0.08
Youngest child 4-6 years	0.07	0.20	0.08	0.20	-0.08	0.09	-0.08	0.09	0.15	0.09	0.16	0.09
Youngest child 7-12 years	-0.01	0.16	0.04	0.15	-0.02	0.08	-0.03	0.08	0.13	0.08	0.15*	0.07
Observations	2,890		2,890		2,890		2,890		2,890		2,890	
Individuals	722		722		722		722		722		722	
Adjusted R2	0.26		0.29		0.50		0.50		0.25		0.29	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* p < 0.1, ** p < 0.05, *** p < 0.01.

Table S5. Fixed effects regressions of gender-specific changes in domestic tasks work across migration, excluding family reunification

	Errands				Housework				Repairs			
	Males		Females		Males		Females		Males		Females	
Migration	4.23***	0.28	2.61***	0.25	1.04***	0.09	0.85***	0.12	0.44***	0.11	0.85***	0.11
Age (ref: 18-27 years)												
28-37 year	0.16	0.32	0.74**	0.25	-0.28*	0.12	0.08	0.17	-0.08	0.14	-0.18	0.12
38-47 years	0.43	0.51	1.41***	0.42	-0.58***	0.17	0.24	0.25	-0.04	0.23	-0.20	0.21
48-57 years	0.77	0.67	2.19***	0.58	-0.69**	0.23	0.09	0.33	-0.04	0.30	-0.10	0.29
58-65 years	1.50	0.89	3.06***	0.79	-0.72*	0.31	0.06	0.49	-0.00	0.39	-0.25	0.38
Married	-0.67	0.37	-0.13	0.33	-0.29*	0.13	-0.03	0.18	-0.19	0.15	-0.40**	0.14
Children (ref: no child)												
Youngest child 0-1 year	0.10	0.29	0.42	0.29	0.06	0.11	0.10	0.16	-0.00	0.11	0.30**	0.11
Youngest child 2-3 years	-0.48	0.28	-0.52*	0.25	0.02	0.11	0.01	0.16	-0.13	0.12	0.12	0.12
Youngest child 4-6 years	0.28	0.30	-0.14	0.28	-0.04	0.10	-0.07	0.15	-0.09	0.13	0.41***	0.12
Youngest child 7-12 years	-0.04	0.24	0.03	0.22	-0.01	0.09	0.01	0.14	-0.07	0.11	0.35***	0.10
Observations	1,445		1,445		1,445		1,445		1,445		1,445	
Individuals	361		361		361		361		361		361	
Adjusted R2	0.26		0.30		0.26		0.38		0.26		0.24	

Note: Standard errors in parentheses, clustered by couple. Regression include individual and survey year fixed effects.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S6. Fixed effects regressions of gender-specific changes in domestic tasks work across migration, excluding family reunification

	Errands				Housework				Repairs			
	Males		Females		Males		Females		Males		Females	
YSM[a] (ref: -1 year)												
+1-3 years	3.29***	0.26	2.00***	0.23	1.08***	0.10	1.07***	0.13	0.18	0.11	0.47***	0.11
+4-6 years	0.88	0.54	0.24	0.48	1.15***	0.19	1.71***	0.24	-0.52**	0.20	-0.61**	0.22
+7 years	0.16	0.66	-0.06	0.55	1.24***	0.25	1.75***	0.32	-0.65*	0.25	-0.79**	0.27
Age (ref: 18-27 years)												
28-37 year	-0.03	0.31	0.83***	0.25	-0.27*	0.12	0.05	0.17	-0.14	0.14	-0.12	0.12
38-47 years	0.11	0.49	1.59***	0.42	-0.57***	0.17	0.18	0.25	-0.14	0.22	-0.09	0.20
48-57 years	0.25	0.65	2.34***	0.58	-0.67**	0.23	0.04	0.33	-0.19	0.29	-0.00	0.27
58-65 years	0.73	0.85	3.20***	0.79	-0.69*	0.31	0.02	0.49	-0.23	0.38	-0.17	0.35
Married	-0.43	0.35	0.06	0.32	-0.30*	0.14	-0.10	0.18	-0.12	0.14	-0.28*	0.14
Children (ref: no child)												
Youngest child 0-1 year	0.20	0.28	0.48	0.28	0.06	0.11	0.07	0.16	0.03	0.11	0.34**	0.10
Youngest child 2-3 years	-0.36	0.27	-0.44	0.24	0.02	0.11	-0.02	0.16	-0.09	0.12	0.17	0.11
Youngest child 4-6 years	0.34	0.29	-0.15	0.27	-0.05	0.11	-0.06	0.15	-0.08	0.13	0.40***	0.12
Youngest child 7-12 years	0.04	0.22	0.07	0.21	-0.01	0.09	-0.01	0.13	-0.05	0.10	0.38***	0.10
Observations	1,445		1,445		1,445		1,445		1,445		1,445	
Individuals	361		361		361		361		361		361	
Adjusted R2	0.34		0.23		0.26		0.39		0.28		0.29	

Note: Standard errors in parentheses, clustered by couple. Regression include individual and survey year fixed effects.
[a] YSM refers to years since migration.
* p < 0.1, ** p < 0.05, *** p < 0.01.

Table S7. Fixed effects regressions of changes in domestic work across migration, outliers trimmed

	All				Males				Females			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	3.29***	0.42			4.50***	0.28			2.62***	0.47		
YSM[a] (ref: -1 year)												
+1-3 years			2.89***	0.38			3.86***	0.24			2.37***	0.44
+4-6 years			1.14*	0.48			1.62**	0.52			1.10	0.58
+7 years			0.88	0.53			1.34*	0.62			0.89	0.65
Age (ref: 18-27 years)												
28-37 year	0.35	0.22	0.32	0.22	0.11	0.30	-0.02	0.29	0.47	0.31	0.50	0.31
38-47 years	0.56	0.33	0.48	0.33	0.30	0.46	0.09	0.44	0.71	0.48	0.72	0.48
48-57 years	0.56	0.46	0.42	0.45	0.36	0.62	0.05	0.60	0.68	0.67	0.66	0.67
58-65 years	0.85	0.62	0.61	0.61	0.78	0.84	0.32	0.81	0.82	0.90	0.74	0.90
Married	-0.70**	0.24	-0.59*	0.24	-0.85**	0.33	-0.68*	0.32	-0.53	0.36	-0.48	0.36
Children (ref: no child)												
Youngest child 0-1 year	0.22	0.19	0.30	0.19	0.16	0.26	0.21	0.26	0.34	0.28	0.43	0.27
Youngest child 2-3 years	-0.16	0.18	-0.11	0.18	-0.11	0.24	-0.06	0.24	-0.13	0.27	-0.08	0.26
Youngest child 4-6 years	-0.09	0.18	-0.08	0.18	-0.03	0.25	-0.04	0.24	-0.10	0.28	-0.07	0.28
Youngest child 7-12 years	0.07	0.16	0.12	0.16	-0.00	0.22	0.05	0.22	0.18	0.25	0.22	0.24
Partner abroad	-0.18	0.17	-0.17	0.17	0.08	0.24	0.07	0.24	-0.16	0.28	-0.14	0.28
Observations	3,319		3,319		1,736		1,736		1,583		1,583	
Individuals	866		866		454		454		412		412	
Adjusted R2	0.31		0.31		0.28		0.32		0.25		0.26	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table S8. Fixed effects regressions of changes in domestic tasks work across migration, outliers trimmed

	Errands				Housework				Repairs			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	2.46***	0.26			0.91***	0.15			-0.09	0.20		
YSM[a] (ref: -1 year)												
+1-3 years			2.11***	0.23			0.97***	0.15			-0.19	0.19
+4-6 years			0.62	0.34			1.19***	0.18			-0.67**	0.21
+7 years			0.33	0.37			1.27***	0.21			-0.72**	0.22
Age (ref: 18-27 years)												
28-37 year	0.41**	0.16	0.38*	0.16	0.02	0.09	0.02	0.09	-0.07	0.07	-0.08	0.07
38-47 years	0.71**	0.25	0.65**	0.24	-0.12	0.13	-0.12	0.13	-0.03	0.11	-0.06	0.11
48-57 years	0.98**	0.35	0.86*	0.34	-0.30	0.18	-0.28	0.18	-0.12	0.15	-0.15	0.15
58-65 years	1.50**	0.45	1.29**	0.45	-0.45	0.25	-0.42	0.25	-0.20	0.20	-0.26	0.19
Married	-0.64***	0.19	-0.55**	0.18	0.05	0.09	0.04	0.09	-0.11	0.07	-0.08	0.07
Children (ref: no child)												
Youngest child 0-1 year	0.10	0.15	0.16	0.14	0.11	0.08	0.10	0.08	0.02	0.06	0.04	0.06
Youngest child 2-3 years	-0.19	0.13	-0.14	0.13	0.03	0.08	0.02	0.08	-0.00	0.06	0.01	0.06
Youngest child 4-6 years	-0.02	0.13	-0.01	0.13	-0.12	0.08	-0.12	0.08	0.05	0.06	0.06	0.06
Youngest child 7-12 years	-0.00	0.12	0.04	0.11	-0.02	0.07	-0.02	0.07	0.09	0.06	0.10	0.06
Partner abroad	0.08	0.12	0.09	0.12	-0.25***	0.07	-0.26***	0.07	-0.00	0.05	0.00	0.05
Observations	3,319		3,319		3,319		3,319		3,319		3,319	
Individuals	866		866		866		866		866		866	
Adjusted R2	0.22		0.24		0.56		0.56		0.27		0.29	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* p < 0.1, ** p < 0.05, *** p < 0.01.

Table S9. Fixed effects regressions of gender-specific changes in domestic tasks work across migration, outliers trimmed

	Errands				Housework				Repairs			
	Males		Females		Males		Females		Males		Females	
Migration	3.44***	0.23	2.00***	0.23	0.92***	0.07	0.84***	0.16	0.14	0.09	-0.21	0.27
Age (ref: 18-27 years)												
28-37 year	0.33	0.23	0.50*	0.22	-0.13	0.10	-0.03	0.14	-0.09	0.12	-0.01	0.09
38-47 years	0.68*	0.34	0.77*	0.36	-0.31*	0.14	-0.10	0.22	-0.07	0.17	0.04	0.14
48-57 years	0.98*	0.49	1.04*	0.51	-0.42*	0.19	-0.39	0.29	-0.20	0.22	0.02	0.21
58-65 years	1.65**	0.63	1.40*	0.66	-0.56*	0.27	-0.58	0.41	-0.31	0.30	0.00	0.25
Married	-0.78**	0.26	-0.45	0.29	-0.01	0.10	0.11	0.14	-0.07	0.11	-0.19*	0.09
Children (ref: no child)												
Youngest child 0-1 year	0.09	0.20	0.06	0.21	0.04	0.08	0.29*	0.13	0.03	0.09	-0.00	0.08
Youngest child 2-3 years	-0.07	0.18	-0.33	0.18	-0.02	0.08	0.17	0.13	-0.01	0.09	0.02	0.09
Youngest child 4-6 years	0.03	0.18	-0.12	0.20	-0.02	0.08	-0.16	0.13	-0.04	0.09	0.18*	0.09
Youngest child 7-12 years	-0.01	0.16	-0.03	0.17	-0.02	0.07	0.05	0.11	0.03	0.08	0.16*	0.08
Partner abroad	0.08	0.18	0.06	0.20	-0.08	0.08	-0.07	0.13	0.08	0.08	-0.15*	0.08
Observations	1,736		1,583		1,736		1,583		1,736		1,583	
Individuals	454		412		454		412		454		412	
Adjusted R2	0.26		0.14		0.29		0.47		0.27		0.21	

Note: Standard errors in parentheses, clustered by couple. Regression include individual and survey year fixed effects.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S10. Fixed effects regressions of gender-specific changes in domestic tasks work across migration, outliers trimmed

	Errands				Housework				Repairs			
	Males		Females		Males		Females		Males		Females	
YSM[a] (ref: -1 year)												
+1-3 years	2.87***	0.19	1.78***	0.22	0.97***	0.08	0.91***	0.17	0.02	0.09	-0.31	0.26
+4-6 years	0.97*	0.43	0.71	0.39	1.09***	0.14	1.21***	0.22	-0.44**	0.16	-0.81**	0.29
+7 years	0.63	0.48	0.49	0.44	1.16***	0.19	1.29***	0.29	-0.46*	0.19	-0.89**	0.31
Age (ref: 18-27 years)												
28-37 year	0.22	0.22	0.53*	0.22	-0.12	0.10	-0.03	0.14	-0.12	0.12	0.00	0.09
38-47 years	0.50	0.33	0.78*	0.36	-0.30*	0.14	-0.11	0.22	-0.11	0.17	0.04	0.14
48-57 years	0.71	0.47	1.03*	0.51	-0.40*	0.19	-0.38	0.29	-0.26	0.22	0.02	0.20
58-65 years	1.26*	0.61	1.34*	0.66	-0.54*	0.27	-0.56	0.41	-0.40	0.29	-0.03	0.25
Married	-0.64*	0.25	-0.41	0.28	-0.01	0.10	0.09	0.14	-0.03	0.11	-0.16	0.09
Children (ref: no child)												
Youngest child 0-1 year	0.13	0.20	0.13	0.20	0.04	0.08	0.26*	0.13	0.04	0.09	0.03	0.08
Youngest child 2-3 years	-0.03	0.18	-0.28	0.18	-0.02	0.09	0.16	0.13	-0.00	0.09	0.04	0.08
Youngest child 4-6 years	0.03	0.18	-0.10	0.19	-0.02	0.08	-0.17	0.13	-0.05	0.09	0.19*	0.09
Youngest child 7-12 years	0.04	0.15	0.00	0.17	-0.02	0.07	0.04	0.11	0.04	0.08	0.18*	0.08
Partner abroad	0.06	0.18	0.08	0.20	-0.07	0.08	-0.08	0.13	0.08	0.08	-0.14	0.08
Observations	1,736		1,583		1,736		1,583		1,736		1,583	
Individuals	454		412		454		412		454		412	
Adjusted R2	0.30		0.15		0.29		0.47		0.28		0.23	

Note: Standard errors in parentheses, clustered by couple. Regression include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S11. Fixed effects regressions of changes in domestic work across migration with employment hours

	All				Males				Females			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	5.23***	0.80			5.73***	0.37			4.54***	1.02		
YSM[a] (ref: -1 year)												
+1-3 years			4.48***	0.87			4.39***	0.36			4.05***	1.07
+4-6 years			2.00*	0.94			1.16	0.61			2.20	1.15
+7 years			1.42	0.98			0.43	0.74			1.80	1.20
Age (ref: 18-27 years)												
28-37 year	0.38	0.24	0.37	0.24	0.02	0.37	-0.20	0.36	0.54	0.32	0.63	0.32
38-47 years	0.47	0.38	0.44	0.38	-0.16	0.58	-0.51	0.56	0.94	0.51	1.07*	0.51
48-57 years	0.73	0.52	0.58	0.51	0.07	0.76	-0.50	0.73	1.27	0.71	1.36	0.71
58-65 years	1.23	0.71	0.93	0.70	0.53	1.03	-0.29	0.99	1.83	0.96	1.85	0.95
Married	-0.96***	0.26	-0.77**	0.26	-1.09**	0.38	-0.79*	0.36	-0.94**	0.36	-0.80*	0.36
Children (ref: no child)												
Youngest child 0-1 year	0.48*	0.22	0.53*	0.22	0.09	0.30	0.13	0.29	1.02**	0.32	1.07***	0.32
Youngest child 2-3 years	-0.31	0.22	-0.24	0.21	-0.46	0.32	-0.37	0.31	-0.02	0.30	0.05	0.29
Youngest child 4-6 years	0.18	0.22	0.17	0.21	0.13	0.30	0.13	0.30	0.33	0.32	0.30	0.31
Youngest child 7-12 years	0.12	0.18	0.15	0.17	-0.04	0.26	0.00	0.25	0.33	0.25	0.36	0.25
Partner abroad	-0.08	0.19	-0.09	0.20	0.17	0.27	0.11	0.27	-0.17	0.31	-0.16	0.31
Employment hours	0.04*	0.02	0.04*	0.02	0.03	0.02	0.05	0.03	0.07**	0.03	0.06*	0.03
Observations	3,945		3,945		1,973		1,973		1,972		1,972	
Individuals	1,004		1,004		502		502		502		502	
Adjusted R2	0.32		0.35		0.32		0.37		0.28		0.30	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table S12. Fixed effects regressions of changes in domestic tasks work across migration with employment hours

	Errands				Housework				Repairs			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	3.46***	0.57			1.06***	0.14			0.71*	0.30		
YSM[a] (ref: -1 year)												
+1-3 years			2.84***	0.65			1.16***	0.15			0.48	0.32
+4-6 years			0.85	0.70			1.49***	0.18			-0.34	0.33
+7 years			0.31	0.74			1.59***	0.21			-0.47	0.35
Age (ref: 18-27 years)												
28-37 year	0.36*	0.18	0.35*	0.18	0.08	0.10	0.08	0.10	-0.06	0.08	-0.07	0.08
38-47 years	0.51	0.29	0.49	0.29	0.03	0.14	0.04	0.14	-0.07	0.12	-0.09	0.12
48-57 years	0.90*	0.41	0.78	0.40	-0.11	0.18	-0.09	0.18	-0.06	0.17	-0.12	0.17
58-65 years	1.65**	0.54	1.41**	0.53	-0.24	0.24	-0.20	0.24	-0.18	0.23	-0.28	0.22
Married	-0.66***	0.19	-0.50**	0.18	-0.08	0.10	-0.10	0.10	-0.23**	0.08	-0.17*	0.08
Children (ref: no child)												
Youngest child 0-1 year	0.34*	0.17	0.39*	0.16	-0.06	0.09	-0.07	0.09	0.19**	0.07	0.21**	0.07
Youngest child 2-3 years	-0.27	0.15	-0.21	0.15	-0.09	0.08	-0.10	0.08	0.05	0.07	0.08	0.07
Youngest child 4-6 years	0.13	0.16	0.12	0.15	-0.18*	0.08	-0.18*	0.08	0.23**	0.07	0.22**	0.07
Youngest child 7-12 years	-0.02	0.13	0.01	0.12	-0.03	0.07	-0.04	0.07	0.17**	0.06	0.17**	0.06
Partner abroad	0.03	0.13	0.01	0.14	-0.15*	0.07	-0.15*	0.07	0.05	0.06	0.04	0.06
Employment hours	0.10***	0.01	0.10***	0.01	-0.04***	0.01	-0.04***	0.01	-0.02***	0.01	-0.02***	0.01
Observations	3,945		3,945		3,945		3,945		3,945		3,945	
Individuals	1,004		1,004		1,004		1,004		1,004		1,004	
Adjusted R2	0.28		0.31		0.52		0.52		0.24		0.27	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* p < 0.1, ** p < 0.05, *** p < 0.01.

Table S13. Fixed effects regressions of gender-specific changes in domestic tasks work across migration with employment hours

	Errands				Housework				Repairs			
	Males		Females		Males		Females		Males		Females	
Migration	3.82***	0.29	2.96***	0.71	1.32***	0.09	0.71***	0.18	0.59***	0.11	0.86*	0.42
Age (ref: 18-27 years)												
28-37 year	0.11	0.27	0.53*	0.23	-0.10	0.12	0.13	0.15	0.01	0.12	-0.12	0.11
38-47 years	0.06	0.44	0.88*	0.38	-0.29	0.16	0.25	0.21	0.07	0.18	-0.19	0.17
48-57 years	0.37	0.60	1.34*	0.54	-0.36	0.22	0.06	0.28	0.05	0.24	-0.12	0.25
58-65 years	1.02	0.80	2.20**	0.70	-0.52	0.28	-0.01	0.40	0.02	0.32	-0.35	0.32
Married	-0.72**	0.27	-0.62*	0.27	-0.20	0.11	0.04	0.15	-0.16	0.11	-0.37***	0.11
Children (ref: no child)												
Youngest child 0-1 year	-0.02	0.23	0.75**	0.24	0.00	0.09	-0.05	0.15	0.11	0.09	0.32***	0.10
Youngest child 2-3 years	-0.38	0.22	-0.13	0.21	-0.06	0.10	-0.04	0.14	-0.01	0.09	0.15	0.10
Youngest child 4-6 years	0.18	0.22	0.09	0.23	-0.09	0.09	-0.23	0.13	0.03	0.10	0.47***	0.10
Youngest child 7-12 years	-0.10	0.19	0.06	0.18	0.01	0.07	-0.04	0.11	0.04	0.08	0.32***	0.08
Partner abroad	0.08	0.19	-0.10	0.21	-0.02	0.09	-0.10	0.12	0.11	0.08	0.02	0.09
Employment hours	0.10***	0.02	0.10***	0.02	-0.04***	0.01	-0.03**	0.01	-0.02**	0.01	-0.01	0.01
Observations	1,973		1,972		1,973		1,972		1,973		1,972	
Individuals	502		502		502		502		502		502	
Adjusted R2	0.34		0.22		0.28		0.41		0.25		0.23	

Note: Standard errors in parentheses, clustered by couple. Regression include individual and survey year fixed effects.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S14. Fixed effects regressions of gender-specific changes in domestic tasks work across migration with employment hours

	Errands				Housework				Repairs			
	Males		Females		Males		Females		Males		Females	
YSM[a] (ref: -1 year)												
+1-3 years	2.72***	0.27	2.57***	0.76	1.35***	0.10	0.86***	0.20	0.33**	0.11	0.62	0.43
+4-6 years	0.12	0.48	1.08	0.84	1.36***	0.16	1.46***	0.25	-0.32	0.19	-0.34	0.46
+7 years	-0.61	0.59	0.74	0.89	1.47***	0.21	1.56***	0.31	-0.42	0.23	-0.50	0.48
Age (ref: 18-27 years)												
28-37 year	-0.07	0.27	0.60**	0.23	-0.10	0.12	0.10	0.14	-0.04	0.12	-0.08	0.10
38-47 years	-0.22	0.43	0.98**	0.38	-0.29	0.16	0.21	0.21	-0.00	0.18	-0.12	0.17
48-57 years	-0.08	0.58	1.41**	0.53	-0.36	0.21	0.03	0.27	-0.06	0.24	-0.08	0.24
58-65 years	0.37	0.77	2.21**	0.70	-0.52	0.28	-0.01	0.39	-0.14	0.31	-0.35	0.30
Married	-0.48	0.26	-0.50	0.27	-0.20	0.11	-0.01	0.15	-0.10	0.11	-0.29**	0.11
Children (ref: no child)												
Youngest child 0-1 year	0.02	0.22	0.79***	0.23	0.00	0.09	-0.06	0.14	0.11	0.09	0.35***	0.09
Youngest child 2-3 years	-0.31	0.22	-0.07	0.20	-0.06	0.10	-0.06	0.14	0.01	0.09	0.18	0.10
Youngest child 4-6 years	0.19	0.21	0.07	0.22	-0.09	0.09	-0.22	0.13	0.03	0.10	0.45***	0.10
Youngest child 7-12 years	-0.06	0.18	0.08	0.18	0.01	0.07	-0.05	0.11	0.05	0.08	0.33***	0.08
Partner abroad	0.04	0.20	-0.09	0.21	-0.02	0.09	-0.10	0.12	0.10	0.08	0.03	0.09
Employment hours	0.11***	0.02	0.10***	0.02	-0.04***	0.01	-0.03*	0.01	-0.02**	0.01	-0.01	0.01
Observations	1,973		1,972		1,973		1,972		1,973		1,972	
Individuals	502		502		502		502		502		502	
Adjusted R2	0.38		0.24		0.28		0.42		0.27		0.28	

Note: Standard errors in parentheses, clustered by couple. Regression include individual and survey year fixed effects.
[a] YSM refers to years since migration.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S15. Fixed effects regressions of changes in domestic work across migration with pre-migration time use provided up to ten years after immigration

	All				Males				Females			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	5.97***	0.68			7.42***	0.34			5.12***	0.87		
YSM[a] (ref: -1 year)												
+1-3 years			5.41***	0.71			6.51***	0.39			4.71***	0.92
+4-6 years			3.86***	0.81			4.52***	0.71			3.50**	1.06
+7 years			3.83***	0.90			4.55***	0.91			3.49**	1.18
Age (ref: 18-27 years)												
28-37 year	0.31	0.28	0.29	0.28	-0.21	0.44	-0.37	0.44	0.47	0.37	0.52	0.37
38-47 years	0.68	0.47	0.61	0.47	-0.23	0.71	-0.53	0.70	1.21	0.64	1.26*	0.64
48-57 years	0.85	0.67	0.72	0.67	-0.15	0.95	-0.56	0.93	1.52	0.96	1.55	0.96
58-65 years	0.87	0.93	0.57	0.93	-0.30	1.36	-0.88	1.33	1.58	1.28	1.44	1.28
Married	-0.87**	0.28	-0.74**	0.28	-1.04*	0.40	-0.86*	0.39	-0.70	0.37	-0.61	0.38
Children (ref: no child)												
Youngest child 0-1 year	0.42	0.24	0.45	0.23	0.16	0.31	0.20	0.31	0.79*	0.35	0.81*	0.35
Youngest child 2-3 years	-0.25	0.24	-0.22	0.23	-0.25	0.35	-0.21	0.34	-0.13	0.32	-0.10	0.32
Youngest child 4-6 years	0.14	0.26	0.09	0.26	0.15	0.36	0.10	0.35	0.21	0.37	0.16	0.37
Youngest child 7-12 years	0.11	0.23	0.11	0.23	0.19	0.31	0.18	0.30	0.09	0.34	0.09	0.34
Partner abroad	-0.08	0.22	-0.07	0.22	-0.05	0.30	-0.03	0.31	-0.00	0.36	0.01	0.36
Observations	2,583		2,583		2,583		2,583		2,583		2,583	
Individuals	694		694		694		694		694		694	
Adjusted R2	0.38		0.39		0.42		0.44		0.33		0.34	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table S16. Fixed effects regressions of changes in domestic tasks work across migration with pre-migration time use provided up to ten years after immigration

	Errands				Housework				Repairs			
	(1)		(2)		(3)		(4)		(5)		(6)	
Migration	4.49***	0.36			0.64***	0.15			0.84**	0.31		
YSM[a] (ref: -1 year)												
+1-3 years			4.02***	0.40			0.71***	0.16			0.68*	0.32
+4-6 years			2.82***	0.51			0.90***	0.20			0.14	0.35
+7 years			2.71***	0.59			0.90***	0.25			0.23	0.37
Age (ref: 18-27 years)												
28-37 year	0.36	0.22	0.35	0.22	0.08	0.11	0.08	0.11	-0.13	0.09	-0.13	0.09
38-47 years	0.59	0.37	0.54	0.37	0.18	0.17	0.19	0.17	-0.09	0.15	-0.12	0.14
48-57 years	0.72	0.53	0.63	0.53	0.16	0.23	0.18	0.23	-0.03	0.21	-0.08	0.21
58-65 years	1.25	0.72	1.03	0.71	-0.31	0.32	-0.27	0.32	-0.07	0.28	-0.19	0.27
Married	-0.40*	0.20	-0.31	0.20	-0.18	0.11	-0.19	0.11	-0.29***	0.08	-0.25**	0.08
Children (ref: no child)												
Youngest child 0-1 year	0.24	0.18	0.26	0.18	-0.08	0.10	-0.08	0.10	0.26***	0.07	0.27***	0.07
Youngest child 2-3 years	-0.31	0.17	-0.29	0.17	-0.08	0.10	-0.08	0.10	0.14	0.07	0.15*	0.07
Youngest child 4-6 years	0.06	0.20	0.02	0.20	-0.22*	0.09	-0.21*	0.09	0.30***	0.08	0.28***	0.08
Youngest child 7-12 years	-0.01	0.18	-0.01	0.17	-0.08	0.09	-0.08	0.09	0.21**	0.07	0.20**	0.07
Partner abroad	0.19	0.16	0.19	0.16	-0.27**	0.09	-0.27**	0.09	-0.00	0.07	0.00	0.07
Observations	2,583		2,583		2,583		2,583		2,583		2,583	
Individuals	694		694		694		694		694		694	
Adjusted R2	0.35		0.36		0.48		0.49		0.26		0.28	

Note: Standard errors clustered by individual. All models include individual and survey year fixed effects.

[a] YSM refers to years since migration.

* p < 0.1, ** p < 0.05, *** p < 0.01.

Table S17. Fixed effects regressions of gender-specific changes in domestic tasks work across migration with pre-migration time use provided up to ten years after immigration

	Errands				Housework				Repairs			
	Males		Females		Males		Females		Males		Females	
Migration	5.67***	0.27	3.65***	0.44	1.06***	0.08	0.43**	0.16	0.69***	0.11	1.04*	0.45
Age (ref: 18-27 years)												
28-37 year	-0.15	0.33	0.67*	0.28	-0.01	0.14	-0.02	0.16	-0.05	0.14	-0.18	0.12
38-47 years	-0.27	0.56	1.25*	0.50	-0.03	0.20	0.19	0.24	0.07	0.22	-0.23	0.20
48-57 years	-0.32	0.76	1.57*	0.73	0.01	0.26	0.12	0.37	0.16	0.29	-0.17	0.32
58-65 years	-0.26	1.06	2.49**	0.93	-0.37	0.35	-0.53	0.54	0.33	0.38	-0.38	0.46
Married	-0.50	0.28	-0.28	0.29	-0.29*	0.13	-0.05	0.17	-0.25*	0.12	-0.38**	0.11
Children (ref: no child)												
Youngest child 0-1 year	0.03	0.24	0.50	0.27	-0.06	0.11	-0.05	0.16	0.19*	0.09	0.34***	0.09
Youngest child 2-3 years	-0.31	0.25	-0.26	0.24	-0.06	0.11	-0.04	0.16	0.12	0.10	0.17	0.10
Youngest child 4-6 years	0.17	0.28	-0.03	0.29	-0.16	0.10	-0.25	0.15	0.13	0.10	0.49***	0.12
Youngest child 7-12 years	0.03	0.25	-0.04	0.26	0.00	0.10	-0.14	0.14	0.16	0.10	0.27**	0.10
Partner abroad	0.06	0.23	0.03	0.26	-0.18	0.09	-0.07	0.14	0.07	0.10	0.04	0.10
Observations	1,284		1,299		1,284		1,299		1,284		1,299	
Individuals	345		349		345		349		345		349	
Adjusted R2	0.43		0.26		0.26		0.43		0.22		0.31	

Note: Standard errors in parentheses, clustered by couple. Regression include individual and survey year fixed effects.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table S18. Fixed effects regressions of gender-specific changes in domestic tasks work across migration with pre-migration time use provided up to ten years after immigration

	Errands				Housework				Repairs			
	Males		Females		Males		Females		Males		Females	
YSM[a] (ref: -1 year)												
+1-3 years	4.94***	0.32	3.29***	0.49	1.05***	0.11	0.56**	0.18	0.51***	0.12	0.87	0.46
+4-6 years	3.43***	0.57	2.30***	0.64	1.02***	0.20	0.95***	0.26	0.07	0.21	0.25	0.49
+7 years	3.33***	0.73	2.22**	0.76	1.07***	0.27	0.94**	0.35	0.16	0.27	0.33	0.53
Age (ref: 18-27 years)												
28-37 year	-0.27	0.33	0.71*	0.28	-0.01	0.14	-0.03	0.16	-0.09	0.14	-0.16	0.12
38-47 years	-0.49	0.56	1.29**	0.49	-0.04	0.20	0.18	0.24	-0.00	0.21	-0.21	0.20
48-57 years	-0.61	0.75	1.60*	0.74	-0.01	0.26	0.11	0.36	0.06	0.28	-0.16	0.31
58-65 years	-0.69	1.04	2.39*	0.94	-0.38	0.35	-0.49	0.53	0.19	0.37	-0.46	0.44
Married	-0.37	0.27	-0.20	0.29	-0.28*	0.13	-0.08	0.17	-0.21	0.11	-0.33**	0.12
Children (ref: no child)												
Youngest child 0-1 year	0.06	0.24	0.52	0.27	-0.06	0.11	-0.06	0.16	0.20*	0.09	0.35***	0.09
Youngest child 2-3 years	-0.28	0.24	-0.24	0.24	-0.06	0.11	-0.05	0.16	0.13	0.10	0.19	0.10
Youngest child 4-6 years	0.14	0.27	-0.07	0.29	-0.16	0.10	-0.23	0.15	0.12	0.10	0.46***	0.11
Youngest child 7-12 years	0.02	0.24	-0.04	0.26	0.00	0.10	-0.14	0.14	0.16	0.09	0.27**	0.09
Partner abroad	0.07	0.24	0.03	0.26	-0.17	0.09	-0.07	0.14	0.08	0.09	0.04	0.10
Observations	1,284		1,299		1,284		1,299		1,284		1,299	
Individuals	345		349		345		349		345		349	
Adjusted R2	0.45		0.27		0.26		0.44		0.23		0.33	

Note: Standard errors in parentheses, clustered by couple. Regression include individual and survey year fixed effects.
[a] YSM refers to years since migration.
* p < 0.1, ** p < 0.05, *** p < 0.01.

CHAPTER 4

AGENTS OF SOCIALIZATION AND FEMALE MIGRANTS' EMPLOYMENT: THE INFLUENCE OF MOTHERS AND THE COUNTRY CONTEXT

Abstract

Women around the world are on the move but find it difficult to secure jobs. Employment is vital for migrant integration as it affords financial security, autonomy in the family and helps to establish social contacts. Besides human capital, previous research has looked into ethnic origin and specific source country aspects as drivers of female migrant employment. By contrast, ideas of adolescence as the 'impressionable' years and individuals' exposure to female employment at that time have not yet entered the discussion. However, these theoretical notions have previously been found to be highly predictive of employment in adulthood for natives. This study further investigates these theoretical ideas by using data on 2,047 female immigrants from the German Socio-Economic Panel. Female migrants' employment and hours worked are analysed in multivariate regressions. The analyses focus on female migrants' adolescent experiences with female employment in their family — namely, whether their mother worked — and in the broader labour market — measured by the female to male labour force participation rate — as explanatory variables. These two experiences are retrospectively captured for respondents at age 15. Analyses highlight the deep embeddedness of individuals in home country social norms and the power of role models during youth for later employment.

This is a pre-copyedited, author-produced version of an article accepted for publication in *European Sociological Review* following peer review. The version of record *Magdalena Krieger,* Agents of Socialization and Female Migrants' Employment: The Influence of Mothers and the Country Context, *European Sociological Review*, Volume 36, Issue 6, December 2020, Pages 902–919 is available online at https://doi.org/10.1093/esr/jcaa029

Acknowledgements: I thank Martin Kroh, Philipp Lersch, Jannes Jacobsen, Hannes Kröger, Nicolas Legewie, Lea-Maria Löbel, Zerrin Salikutluk, Katja Schmidt, Janina Steinert, Alexandra Christopher, Jeffrey Hallock, and colleagues at the German Socio-Economic Panel for helpful comments on earlier versions of this article.

Women around the world are on the move. Currently, half of the world's migrants are female, making them a sizeable group with unique resources, needs, and vulnerabilities (Rubiano-Matulevich and Beegle, 2018). Previous studies depicting female migration have illustrated that women, compared to men, face particular difficulties in entering host countries' labour markets: five years after arriving in Germany, 80% of migrant men but only 50% of migrant women were employed, surpassing the native gender employment gap by far (Salikutluk, Giesecke, and Kroh, 2016; The World Bank, 2019). However, employment is considered vital for integration as it affords financial security, autonomy and influence in the family and helps to establish social contacts. Being employed therefore is a private, public, and policy concern alike (Jayachandran, 2019).

Previous research on native women has shown adolescent experiences to be decisive for employment in adulthood (Van Putten, Dykstra, and Schippers, 2008). To date, studies on female migrants' employment have not tested ideas of socialization but instead considered human capital, ethnic origin, and more specific source country aspects as drivers of employment (Khoudja and Fleischmann, 2015). For example, female to male labour force participation rates in the country of origin and year before emigration are predictive of females' later employment (Frank and Hou, 2015). But socialization theory argues that impressions from adolescence rather than adulthood leave a permanent imprint on people's lives. The theory further sees adolescents as not only embedded in society but, importantly, also in their family whose views might deviate from the mainstream (Bandura and Walters, 1977; Polavieja, 2012). McGinn, Ruiz Castro, and Lingo (2019) refer to these ideas in their analysis of adolescents' exposure to their mothers' employment and female employment in society as drivers of native women's employment. Similarly, this study asks how the prevalence of female employment in these two agents of socialization as well as their interaction impact female migrants' adult employment. In addition to gaining new insights on female migrants, considering migrants rather than natives

is advantageous as it allows for approximating the effect of norms — that is, '[...] society's informal rules about appropriate [...] behaviour' (Jayachandran, 2019: p. 1). Whereas female employment can vary for norms, laws, or institutions for natives, migrants have left their home countries' institutions but taken portable norms with them. The study of migrants thus allows mechanisms behind the impact of societal female employment to be narrowed down to norms (Fernández and Fogli, 2009).

To investigate this, I use data on 2,047 first-generation female immigrants from the German Socio- Economic Panel (SOEP), who immigrated to Germany between 1975 and 2017 (Giesselmann et al., 2019). Given that Germany is the largest recipient of migrants in Europe (IOM, 2019), it is a highly relevant case to consider. SOEP's data is beneficial as its random sample of migrants covers large parts of German immigration history. I measure female migrants' participation in Germany's labour market with their employment and hours worked. I focus on respondents' experiences with female employment in their family — that is, whether the respondent's mother worked — and in the labour market — measured as female to male employment — as explanatory variables. These two experiences are retrospectively captured for respondents at age 15. Looking through the lens of socialization, 15 is a meaningful age given that it reflects the life stage when the parental impact diminishes relative to other influences (Davis, 2007). Furthermore, gender attitudes formed during this life stage remain relatively stable throughout adulthood (Platt and Polavieja, 2016).[11]

Overall, this article is unique in transferring ideas of agents of socialization—found to be applicable to natives' experiences—to female migrants. In this way, this study highlights the embeddedness of individuals in home country social norms and the power of role models.

[11] Gender attitudes can also change in response to life course events experienced in later life (Perales, Lersch, and Baxter, 2019).

The German Context: (Female) Immigration and Employment

This study focuses on female migrants, who arrived in Germany between 1975 and 2017. During this period, the number of female foreigners in Germany almost doubled, with large increases in the 1970s, 1990s and after 2004 (Statistisches Bundesamt, 2018). These surges mirror events in Germany's immigration history: large-scale immigration to Germany began in the 1950s when the economy faced skill shortages and thus recruited workers from abroad. Yet, as economic conditions deteriorated in the 1970s, the government urged them to return home. Instead, many stayed and reunified with their families. Since most guest workers were male, female spouses dominated this stream of family migrants (Lingl, 2017). In the 1990s, ethnic German repatriates — that is, foreign-born migrants of German descent — established themselves as a new immigrant group. Under the Federal Law Concerning Displaced Persons, they were granted citizenship and integrative assistance (Kalter and Kogan, 2014). By contrast, integration measures for other migrants were only institutionalized in 2005 (Schneider, 2007). At that time, female migrants mainly arrived from European countries, enjoying freedom of movement and favourable labour market conditions compared to the 1990s. In addition, migrants from third countries continued to arrive (Statistisches Bundesamt, 2018).

Female employment in Germany has been rising steadily, from 40% in 1983 to 57% in 2017. Despite this rise, traditional division of labour remains prevalent with 37% of employed women working part-time (OECD, 2018). Germany's conservative, family-oriented welfare state incentivizes this division: among other things, there is low supply of public childcare, limited full-day care for children and the tax system advantages couples in which one party works reduced hours (Esping-Anderson, 1990; Giesecke, 2009). Finally, Germany's gender pay gap of 21% is high in the European context (Eurostat, 2019). Together, this setting can discourage (migrant) women from pursuing full-time work. Still, seeking employment is generally desirable for migrants as receiving benefits is crucially linked to it (Krieger, 2020).

Theoretical Background

Upon arrival, migrants are vocationally disadvantaged relative to natives. Existing insights into underlying mechanisms highlight the role of human capital (Chiswick, 1978). Human capital can be specific to the host country, the home country or be universally applicable. At the time of immigration, when migrants typically still lack knowledge relevant for life in host societies and home country-specific capital is non-applicable, their human capital stock is devalued. With time spent in host countries, migrants expand their host country-specific knowledge by acquiring language skills and familiarizing themselves with cultural practices. These skills ultimately ease their labour market access (Dustmann and Fabbri, 2003). Yet, employers may further discriminate against migrants. Experiments have shown that foreigners are less likely than natives to be interviewed in application processes (Oreopoulos, 2011). Also, migrants' residence permits are associated with fewer rights than citizenship, hindering vocational success (Hainmueller, Hangartner, and Ward, 2019).

Empirical insights further illustrate that migrant women, relative to men, face specific challenges in accessing labour markets (Demireva, 2011; Fleischmann and Höhne, 2013; Raijman and Semyonov, 1997). Boyd (1984) first labelled this observation the 'double disadvantage'—that is, the '[...] double negative of being female and foreign-born [...]' (Boyd, 1984: p. 1091). Hence, female migrants' ability and/or desire to be employed following immigration are less than that of men.[12] A first reason for why migration disadvantages women more than men is that females are concentrated in few occupations that additionally require extensive host country-specific knowledge (Raijman and Semyonov, 1997). Nurses, teachers, and service workers need to be familiar with the host country's language for doing their job.

[12] The reasons for the prevalence of low-skilled, part-time employment among females are contested in the sociological literature. While Hakim (2002) argues that women have low preferences for full-time employment, other authors have criticized the neglect of institutional constraints such as the avail- ability of childcare in her theoretical considerations (McRae, 2003). Many studies, as the one at hand, cannot distinguish between desired and actual employment due to data availability.

Furthermore, women often migrate with a partner (Ferrer, 2015). This can add to their difficulty in securing jobs. Specifically, an individual's desire to work can be overridden by household concerns: after migration, the amount of chores is vast as a new home needs furnishing and childcare needs to be organized. If these tasks fall exclusively onto women, they will have less time to invest in human capital (Boyle, Zhiqiang, and Vernon, 2009). Finally, women frequently arrive as tied and men as principal movers—that is, women often move for their partners' careers. Accordingly, females tend to migrate into labour markets, which are not beneficial to their skills but their husbands' (Mincer, 1978; Krieger, 2020).

However, not all female migrants have the same experiences. While Krieger (2020) finds no employment differences between female principal and tied movers, Raijman and Semyonov (1997) first showed employment heterogeneity across female migrants' ethnicities in that they face 'triple disadvantages' — that is, '[...] first, as women, second, as recent immigrants, and third, as immigrants from less developed [...] societies' (Raijman and Semyonov, 1997: p. 119). This study extends their insights by taking a deeper look into the background of female migrants to explain the diversity in their post-migration employment experiences. Therefore, this study considers female migrants' adolescent experiences with female employment in two agents of socialization, namely in their family and in their source country's labour market. The next sections discuss underlying theoretical mechanisms.

Mothers and Their Daughters' Employment

When growing up, children are, on the one hand, confronted with what their parents say and, on the other hand, with what they do. According to vertical socialization theory, these daily experiences impact children in their current and transfer into their adult life, irrespective of their migration status (Bandura and Walters, 1977; Thornton, Alwin, and Camburn, 1983). To date, most studies on vertical socialization have looked at stated socialization, meaning the effect of

what parents say to their children (Platt and Polavieja, 2016). These studies mainly assess the impact of parental and maternal attitudes on their children, finding strong links (Starrels, 1992; Janssens and Ex, 1998; De Valk and Liefbroer, 2016).

Platt and Polavieja (2016) study British adolescents and intergenerational gender role transmission and highlight that stated and enacted socialization are equally important. Enacted socialization or behavioural role modelling refer to how parents behave. Parents function as role models when children observe their behaviour and mimic it. This process leads to tasks being performed in a similar way across generations (Rosenfeld, 1978; Starrels, 1992). From the viewpoint of role modelling, mothers' employment is a crucial reference point. Children of employed mothers witness their daily combination of work and care duties. This allows children to familiarize themselves with their mothers' strategies to inhabiting multiple roles and equips them with egalitarian attitudes. Their mothers' employment also gives children the opportunity to learn about the working world by drawing on the knowledge of two closely related persons (Van Putten et al., 2008; Wright and Young, 1998). Together, these experiences will give children and girls, in particular, the self-confidence to pursue similar lifestyles (Macke and Morgan, 1978). The empirical evidence on working mothers and their daughters supports these notions (Rapoport and Rapoport, 1971; Van Putten et al., 2008).

This significance of parents for their children's employment has also been explained with social stratification. This literature argues that socialization is not the root of similarity between parents and children but instead exposure to the same environment. Hence, parents are thought to transfer resources to their children, which causes them think and act alike (Moen, Erickson, and Dempster-McClain, 1997). While many studies have depicted intergenerational earnings and class mobility (Beller, 2009; Lee and Solon, 2009), few have addressed labour market outcomes. Still, maternal employment has been found to be related to daughters'

decision to work (Bielby, 1978; Stevens and Boyd, 1980; Morrill and Morrill, 2013).[13]

Throughout the past century, female employment has undergone a revolution: in the United States, it rose from 2% in 1880 to 70% in 2000 with a particularly stark increase from 1950 onward (Fernández, 2013). This societal shift reflects itself in higher employment among daughters than mothers leading to weaker correlations across generations of one family. Thus, this study's estimates of the importance of mothers for their daughters' employment are conservative given that they coincided with structural changes. Still, the arguments presented suggest that *daughters of working mothers are more involved in the labour market than daughters of homemaking mothers (H1: Mothers' Influence Hypothesis)*.

Society and Female Employment

During adolescence, daughters become aware that, in addition to their family, they are also embedded in society (Davis, 2007). Peers, teachers and the media paint their picture of society (Fernández 2010). Horizontal socialization theory argues that observing society has a formative influence on individuals for it teaches 'proper' ways to behave and sets social norms (Polavieja, 2012; Uunk and Lersch, 2019). When norms are internalized, they become preferences, impacting individuals' future decisions (Akerlof and Kranton, 2000).

But identifying social norms empirically is non-trivial. For instance, cross-national studies show that couples' division of household labour varies across countries but are unable to definitively uncover underlying reasons (Hook, 2010). Are cross-national differences caused by policies, laws or indeed by norms (Polavieja, 2012; Heyne, 2017)? To resolve this empirical dilemma, Fernández and Fogli (2009) put forward the epidemiological approach. The epidemiological approach is based on the notion that norms, as opposed to institutions, are

[13] The resemblance between parents and their children has further been attributed to heredity and thus genetic as opposed to social explanations. Indeed, Rietveld et al. (2013) show genetic predisposition to explain at least 20% of individual variation in educational attainment. Their result highlights the explanatory power of genetic predisposition in addition to social factors for individuals' course of life.

portable. To identify their effect the approach thus studies immigrants in one country, whose norms migrated with them but who left their home countries' institutions behind.

This study, as others before it, focuses on migrants' employment in relation to norms. For example, Frank and Hou (2015) find higher female to male school enrolment in source countries to positively affect migrants' wives share in family labour supply. More commonly, studies examining migrant employment have focused on countries' female to male employment since it directly captures the division of labour on a societal level (Blau, Kahn, and Papps, 2011). From a theoretical point of view, this indicator has important implications. Alesina and Giuliano (2010) show that lower levels of female employment are closely associated with conservative gender norms in society. Socialization theory posits that if individuals observe and internalize conservative gender norms, it will shape their preferences and guide them towards actions conforming to gender conservatism. In fact, studies have shown that source countries' female to male labour force participation is positively related to female migrants' employment (Fernández and Fogli, 2009; Finseraas and Kotsadam, 2017; Kesler, 2018; McManus and Apgar, 2019), hours worked (Blau et al., 2011) and earnings (Frank and Hou, 2016). But, contrary to this analysis, these studies measure female to male employment prior to emigration rather than during adolescence.

Overall, this section suggests that *female migrants who grew up in countries with high female to male employment are more involved in the labour market than female migrants who grew up exposed to low female to male employment (H2: Countries' Influence Hypothesis).*

Whom to Mimic?

Familial experiences may either confirm or contradict observations made in broader society (Blau and Kahn, 2015; Olivetti, Patacchini, and Zenou, 2016; McGinn et al., 2019). With respect to this study's research question, it is for instance conceivable that the mother of a

daughter, who grew up in a country with high female to male employment, was herself also employed. This situation of diversified modelling, in which a certain behaviour is not only observed in one role model (the mother) but in a diverse set of people (society), is particularly effective from a socialization point of view (Bandura and Walters, 1977). But one can further imagine that although a daughter grew up in a country with a low female to male employment, she saw her mother carry out market work when growing up and vice versa. In *The People's Choice*, Lazarsfeld, Gaudet, and Berelson (1944) coined the term 'cross pressures' to describe situations of opposing forces in individuals' environments. The authors did so as part of their analysis of voting behaviour in the United States. They would have, for instance, hypothesized that while the decision to vote Republican will be straightforward for evangelical non-union members, evangelical union members will find themselves in a situation of indecision given that their characteristics do not point in the direction of one party (Therriault, Tucker, and Brader, 2011). This will either result in non-voting or in postponing the decision. In the latter case, it will reflect the position of the strongest force pressuring the individual (Horan, 1971).

To date, the results from empirical studies investigating the role of cross pressures in voting are mixed (Therriault et al., 2011). Beyond research on voting, cross pressures have been applied to adolescents. For example, Rosen (1955) finds that adolescents' religious attitudes are largely influenced by their peers when they are contradictory to their families'. While cross pressures have not yet entered research on female migrants, Blau and Kahn (2015) have simultaneously considered individual and societal spheres in investigating females' post-migration employment. The authors consider source countries' female to male employment and individuals' work experience prior to emigration. Both variables are significant predictors of employment and the authors further find a negative interaction effect implying societal effects to be stronger for those without work experience.

Similar to Rosen (1955), I use the concept of cross pressures to explain situations in

which daughters' adolescent experience of their mothers' employment contradicts societal dynamics at that time. Identifying an exact point on the female employment continuum at which individuals should feel cross-pressured is inherently difficult as it depends on individuals' perception of societal dynamics in specific years and geographic contexts. Still, extremes of the continuum should be exemplary of such processes. Given that parents are a key socializing entity (Hitlin, 2006), this section suggests that the difference in labour force involvement between daughters of working compared to homemaking mothers decreases as female to male employment increases (Hypothesis 3: Effect Modifier Hypothesis).

Data, Measurement and Method

Data

To test these hypotheses, I retrieve data on source countries' male and female labour force participation rates (The World Bank, 2019). A country's labour force participation rate is defined as the share of the population aged 15 and above that is economically active and hence either employed, self-employed or unemployed but seeking to be employed. The data are available from 1970 to 2017 for 217 countries. But for many countries, data points are missing and especially so before 1990 (70% is missing). I deal with missing values as Frank and Hou (2015): I first replace missing values with adjacent years that are a maximum of 5 years apart.[14] I further replace remaining missing values with regional averages. I calculate regional averages by referring to the United Nations' classification of countries into twenty-one areas (see Supplementary Table S1 for details on countries' assignment to geographical regions) (United Nations, 1999). I use regional averages since I expect them to be a better proxy of actual labour force participation ratios than values from the same country but further away in time given that

[14] If two non-missing values are less than ten years apart, I equally replace the missing values in between with preceding and following values but with a priority on preceding values if the number of missing values is odd.

employment can be influenced by developments such as wars (Heyne, 2017). These developments should be captured in the detailed geographical areas, which I employ. Finally, in case a country does not have a single valid data point, I left all values missing. This excludes eight countries.[15] I link this country-level data to individual-level data from the German Socio-Economic Panel (SOEP) by using migrant respondents' country of origin and year in which they were 15 years old. Since data on labour force participation is available from 1970 onward (see above), this excludes individuals who turned 15 prior to that. Furthermore, as the SOEP does not distinguish between the Democratic Republic of the Congo and the Republic of the Congo, I exclude these two countries from the analyses.

The SOEP is a general population household panel study that was first carried out in 1984. It annually asks its respondents to provide information on a wide range of topics such as their education and employment (Giesselmann et al., 2019). The SOEP mostly relies on computer or paper assisted face-to-face interviews. Its overall response rate amounts to 89% for individual questionnaires, which are administered to household members aged 17 and above (Britzke and Schupp, 2018). As the SOEP targets German residents, migrants are part of every sample. But the SOEP further includes samples that specifically aim at surveying migrants: Samples B, D, M1 and M2. While Sample B (1984) covers former guest workers, Sample D (1994/95) focuses on immigration after 1984 and Samples M1 (2013) and M2 (2015) on immigration from 1995 to 2013.[16] This study mostly comprises respondents from Samples M1 and M2 (see Supplementary Table S2; 68.4% of sample). Hence, it predominantly considers recent immigration to Germany, though its sample is still diverse in immigration years (see Supplementary Table S1). The initial response rate for Sample M1 was 31.7% and for Sample

[15] These eight countries are Andorra, the Channel Islands, Curacao, Eritrea, North Korea, St. Martin, Somalia and Turkmenistan.

[16] The sampling method for Samples M1 and M2 is based on register data from the Federal Employment Agency. This sampling approach is advantageous given that German citizens with migratory roots can be identified but comes at the expense of an undercoverage of civil servants and the self-employed. This accounts for 7–8% of the target population (Kroh et al., 2017).

M2 28.8% (Kroh et al., 2018). These rates correspond to the current average response rate in face-to-face surveys in Germany (Schnell, 2019: p. 164). Migrant questionnaires are available in German, English, Turkish, Russian, Romanian and Polish.

For the purpose of this study, I draw on information from individual questionnaires and consider survey years 1984 to 2017 (SOEP v.34; doi:10.5684/soep.v34). This study's target population is daughters, represented by first-generation female immigrants, who arrived in Germany when they were at least 18 years old. This is in contrast to empirical studies such as Finseraas and Kotsadam (2017), who focus on second-generation immigrants in an effort to isolate the effect of norms from employment drops caused by recent immigration. However, considering first-generation immigration is advantageous given that second-generation migrants may be fully acculturated by adulthood (Blau and Kahn, 2015).

From the sample of adult, female immigrants, I first exclude refugees because their employment trajectories are known to differ from other immigrants (Bevelander and Pendakur, 2014). I further focus on respondents who uninterruptedly lived with their mother until they were at least 16 years old. This is to ensure that respondents had significant exposure to their mothers' behavioural patterns throughout childhood. I therefore do not consider respondents whose mother had died by the time they were 15 years old. I further exclude respondents whose mothers were sick or retired at that time. Finally, I perform listwise deletion for respondents where independent or control variables are missing.[17] Supplementary Table S3 summarizes each exclusion criterion with the number of observations dropped.

Overall, this analysis considers 2,047 female migrants from 97 countries, who came to Germany between 1975 and 2017 at ages 18 to 59. Their first SOEP interview took place between 2000 and 2017 (see Supplementary Table S5). A large share of respondents (1,412;

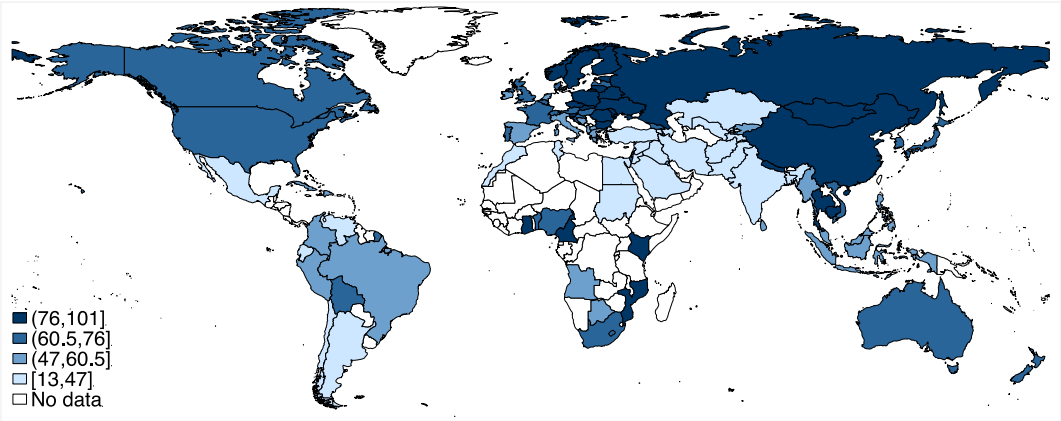
[17] Questions on mothers' employment status were not part of biographical questionnaires in 1984, 2010, and 2013. Supplementary Table S4 compares the socio-economic characteristics of the analytical sample considered in this study to the sample of female migrants that would have been analysed, were questions on mothers included in the survey years 1984, 2010, and 2013.

69%) migrated from countries in which female to male employment in the year before emigration was higher than in Germany. This is due to the fact that most respondents in the sample arrived from Europe and Central Asia (see Supplementary Table S1). This mitigates the concern that all migrants in the sample come to Germany for the freedom to work only.

Measurements

This study has two dependent variables. The first is a dummy variable indicating whether a respondent is employed or economically inactive/unemployed (1=employed, 0=economically inactive/unemployed) in the year first surveyed. The second is the actual weekly working hours for those employed, as a continuous variable.

Figure 1. Labour force participation ratio across sample countries



Note: Countries in white are not part of this study's sample.

The study further has two key independent variables. The first is the country's labour force participation ratio and the second is the mother's employment status when the respondent was 15 years old. I calculate the labour force participation ratio as the female to male labour force participation rate times 100 for every country-year combination. This relative indicator is advantageous as it overcomes data comparability issues associated with cross-country differences in the measurement of employment given that such problems should roughly affect women's and men's employment alike. Figure 1 depicts the variation in the mean labour force participation ratio across countries by using different shades of blue. Darker shades of blue

stand for higher means of the labour force participation ratio. Figure 1 highlights two aspects: first, it shows that this study's sample covers all continents of the world and thus offers insights into a diverse set of regions. Second, the diverse shades of blue illustrate that the analyses consider great variation in labour force participation ratios.

Furthermore, I depict mother's employment by coding a dummy equal to 1 if the mother was employed and 0 if she was economically inactive (1=employed, 0=economically inactive). The information on mother's employment when the respondent was aged 15 years old is retrospectively provided and for respondents the time between being 15 and first being interviewed by the SOEP lies between 4 and 47 years apart. Still, I expect the variable to adequately capture the mechanisms this study aims at as it reflects whether the respondent generally remembers her mother working. Furthermore, the focus on mothers rather than fathers is due to the fact that most fathers (97%) in the sample were employed.

Finally, I control for a range of individual- and country-level variables. Table 1 summarizes these. At the individual-level, I control for respondents' age, age squared (divided by 1,000), years since immigration and for the presence and age of children. Therefore, I code a categorical variable (0=no children, 1=youngest child 0-6 years, 2=youngest child 7–13 years, 3=youngest child 14–18 years, 4=youngest child >18 years). Furthermore, I control for whether the respondent has a partner that she cohabits with and whether this partner is German-born, immigrated from the same or a different country (0=no partner in household, 1=partner is migrant from same country, 2=partner is migrant from different country, 3=partner in household is German). Cohabitation is a preliminary stage of marriage in which couples already take joint decisions. German compared to migrant partners potentially have greater knowledge of administrative procedures that might help women to secure employment. Furthermore, having emigrated from the same rather than different countries may translate into divergent dynamics given adolescent exposure to the same versus different societal conditions

(Fernández, Fogli, and Olivetti, 2004; Blau et al., 2011). I also control for respondents' education. To compare education across countries, I classify degrees according to the International Standard Classification of Education (ISCED) of 1997. I re-grouped the ISCED for even group sizes (1=primary, 2=secondary, 3=post-secondary/tertiary). Furthermore, I take respondents' German language skills into account. When first interviewed by the SOEP, respondents are asked to self- assess their abilities to write and speak German on a scale from 1 (very good) to 5 (not at all). I reverse the item scales, calculate Cronbach's alpha and generate the associated rounded summary score.

Then, I re-group the responses 'not at all' and 'badly' to 1 (poor German), 'averagely' to 2 (medium German) and 'very well' and 'well' to 3 (good German). To grasp respondents' rights at immigration, I include a categorical variable capturing respondents' immigrant group (0=Ethnic German repatriate, 1=EU migrants, 2=third-country national). I also add an indicator for whether the respondent lives in East, North, South or West Germany to capture divergent effects due to local markets and levels of discrimination (1=East, 2=North, 3=South, 4=West).

I further include two source-country characteristics as control variables. I control for the country's GDP per capita in constant 2010 US$ to account for economic conditions when the respondent was 15 years old (UNSD, 2019).[18] I also include distance in kilometres between Germany and the country of origin to proxy migration costs that affect labour supply given larger disruption after migration if immigrating from further away (Blau and Kahn, 2015). For comparability to other variables, I divide both country-level controls by 1,000.

[18] Between 1970 and 1990, I assign the values of Czechoslovakia to the Czech Republic and Slovakia, the values of Yugoslavia to Slovenia, Croatia, Bosnia, Serbia, Montenegro, the Kosovo and Macedonia and the values from the USSR to Russia, Belarus, Ukraine, Georgia, Kazakhstan, Estonia, Latvia, Lithuania, Armenia, Azerbaijan, Kirgizstan, Tadzhikistan, Uzbekistan and Turkmenistan. Furthermore, between 1970 and 1989, I assign the values of former Ethiopia to Ethiopia and Eritrea.

Table 1. Characteristics of the sample population

	%	Min	Max	Mean	SD [b]
Dependent Variables					
Employment		0	1	0.57	0.49
Weekly Hours Worked [a]		1.5	80	29.61	14.16
Independent Variables					
Mother's employment (EM)		0	1	0.63	0.49
Labor force participation ratio (LFPR)		5.54	104.4	64.8	19.5
Control Variables					
Age		19	62	37.53	8.95
Years since immigration		0	37	8.87	6.75
Children					
No children	0.22				
Youngest child 0-6 years	0.35				
Youngest child 7-13 years	0.18				
Youngest child 14-18 years	0.10				
Youngest child > 18 years	0.15				
Partner in household					
No partner in household	0.19				
Partner in household is migrant from same country	0.47				
Partner in household is migrant from different country	0.11				
Partner in household is German	0.23				
Education					
Primary	0.21				
Secondary	0.28				
Post-secondary/Tertiary	0.51				
Immigrant group					
Ethnic German repatriates	0.20				
EU migrants	0.33				
Third-country nationals	0.47				
German skills					
Poor	0.11				
Medium	0.26				
Good	0.63				
German region					
North	0.13				
West	0.42				
East	0.10				
South	0.35				
GPD p.c.		0.16	83.91	8.46	8.64
Distance in km		0.17	18.82	2.63	2.39

Note: [a] Refers to employed women only (N = 1,141). [b] SD refers to standard deviation.

Method

To analyse females' employment and weekly working hours, I estimate the following model:

$$y_{ij} = \alpha + d_s + \beta_1 EM_i + \beta_2 LFPR_j + \beta_3 EM_i * LFPR_j + \beta_4 C_{ij} + u_{ij} \quad (1)$$

where y_{ij} is the employment dummy or hours worked of individual i from country j, α is the constant and d_s are survey year fixed effects to account for common time shocks. Furthermore, I include information on whether respondents' mothers worked when respondents were 15 years old (EM) and the mean centred labour force participation ratio of country j at that time. To test Hypothesis 3, I include an interaction between these variables. Finally, I add control variables (C_{ij}) and cluster the error term u_{ij} by source country.

Whereas employment is observed for every respondent in the sample, only the employed report working hours. These respondents could be a selective sample, which would bias estimates. I thus use a Heckman two-stage regression to check for selectivity (Heckman, 1979). For identification in the selection model, I include respondents' German language skills but exclude this variable in the regression on hours worked. This accounts for the fact that prior regressions showed German skills to affect employment but not hours worked. The analysis did not indicate a bias. Thus, I proceed with logistic regressions for employment and linear regressions for hours worked.

Results

Table 2 displays the results of logistic regressions on respondents' employment when first interviewed. The table reports odds ratios. Given that odds ratios are incomparable across models and that the interpretation of interactions in non-linear models is problematic (Ai and Norton, 2003; Mood, 2010), I graphically display the coefficients of interest in Figures 2–4. Figure 2 shows average marginal effects of the main independent variables; Figures 3 and 4 graphically depict the interactions. Overall, the analyses cover 2,038 rather than 2,047 female

migrants given that all regressions include survey year fixed effects and respondents interviewed in 2005 were all economically inactive (see Supplementary Table S5).

Model 1 depicts the effect of mothers' employment, abstracting from the broader societal environment in which respondents spent their youth. The model shows that mothers have a positive impact on their daughters' adult employment, though not significantly so. Figure 2 displays the corresponding average marginal effect. It shows that the employment likelihood is 4.6 percentage points higher for daughters of working compared to homemaking mothers. By contrast, Model 2 depicts the societal level. This model shows that the labour force participation ratio at age 15 impacts female migrants' employment in later life: A one unit increase in the labour force participation ratio—that is having been 15 years old in a country with a labour force participation ratio of zero relative to one hundred—increases the probability to be employed by 16 percentage points (see Figure 2).

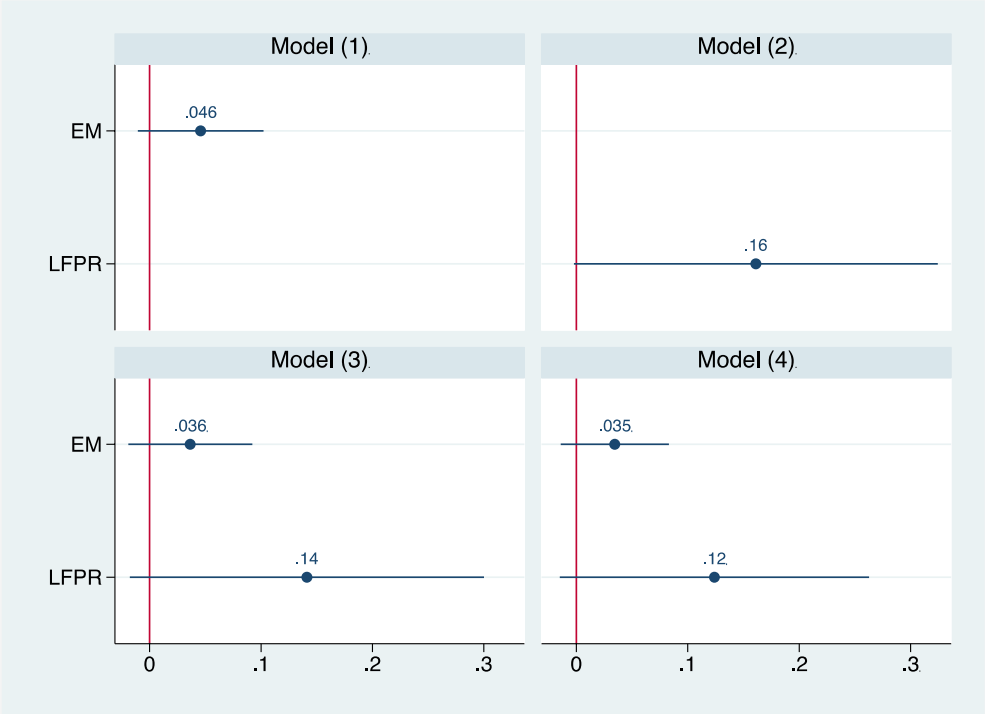
Table 2. Logistic regression estimates of the likelihood of having paid work (Odds ratio)

	(1)	(2)	(3)	(4)
EM [a]	1.27		1.21	1.20
	(0.19)		(0.18)	(0.16)
LFPR [a]		1.01^{+}	1.01^{+}	1.01*
		(0.00)	(0.00)	(0.01)
EM*LFPR				0.99^{+}
				(0.01)
Individual-level Control Variables				
Age	1.23***	1.23***	1.23***	1.22***
	(0.05)	(0.05)	(0.05)	(0.05)
Age squared	0.07***	0.07***	0.07***	0.07***
	(0.04)	(0.04)	(0.04)	(0.04)
Years since immigration	1.05***	1.05***	1.05***	1.05***
	(0.01)	(0.01)	(0.01)	(0.01)
Children (Ref: No children)				
Youngest child 0-6 years	0.17***	0.17***	0.18***	0.18***
	(0.03)	(0.04)	(0.04)	(0.04)
Youngest child 7-13 years	0.62*	0.65*	0.65*	0.64*
	(0.12)	(0.13)	(0.13)	(0.13)
Youngest child 14-18 years	0.86	0.88	0.89	0.88
	(0.28)	(0.30)	(0.31)	(0.31)

Youngest child > 18 years	0.94	0.96	0.97	0.95
	(0.19)	(0.20)	(0.20)	(0.20)
Partner in household (Ref: No partner in household)				
Partner in household is migrant from same country	0.91	0.93	0.94	0.93
	(0.11)	(0.11)	(0.11)	(0.11)
Partner in household is migrant from different country	0.95	0.95	0.96	0.94
	(0.24)	(0.23)	(0.24)	(0.23)
Partner in household is German	1.32	1.28	1.30	1.29
	(0.24)	(0.25)	(0.25)	(0.24)
Education (Ref: Primary)				
Secondary	1.37^{+}	1.37^{+}	1.35^{+}	1.35^{+}
	(0.24)	(0.25)	(0.24)	(0.24)
Post-secondary/Tertiary	1.47***	1.46***	1.42*	1.42*
	(0.20)	(0.20)	(0.20)	(0.20)
German skills (Ref: Poor)				
Medium	1.52*	1.54***	1.52*	1.52*
	(0.25)	(0.25)	(0.25)	(0.25)
Good	2.01***	2.01***	1.96***	1.93***
	(0.40)	(0.41)	(0.39)	(0.39)
Immigrant group (Ref: Repatriate)				
EU migrant	0.90	0.76	0.78	0.81
	(0.19)	(0.18)	(0.19)	(0.19)
Third-country nationals	0.69***	0.66***	0.69***	0.72***
	(0.08)	(0.09)	(0.09)	(0.08)
German region (Ref: East)				
North	0.93	0.95	0.96	0.97
	(0.17)	(0.18)	(0.19)	(0.19)
South	1.70***	1.67***	1.70***	1.71***
	(0.28)	(0.27)	(0.28)	(0.28)
West	1.24	1.26	1.28	1.28
	(0.21)	(0.21)	(0.22)	(0.22)
Country-level Control Variables				
GPD p.c.		1.02*	1.02*	1.02*
		(0.01)	(0.01)	(0.01)
Distance in km		1.02	1.02	1.01
		(0.04)	(0.04)	(0.04)
N	2,038	2,038	2,038	2,038
Loglikelihood	-1,140.70	-1,136.43	-1,135.06	-1,133.20

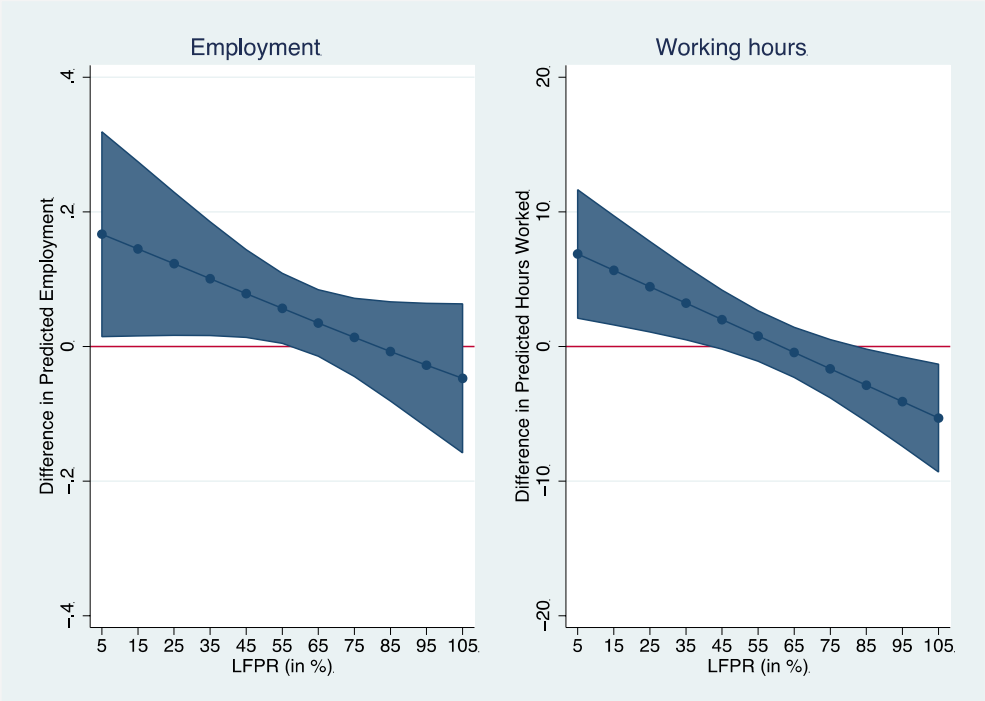
Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Figure 2. Average marginal effects of familial and societal female employment (Table 2)



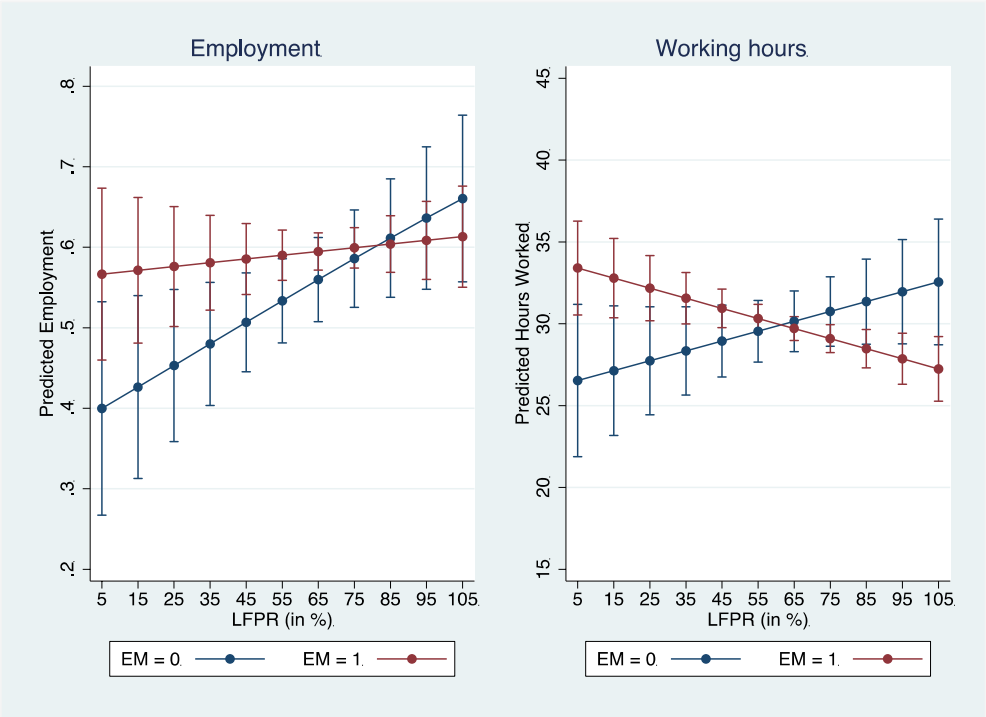
Note: EM, mothers' employment status; LFPR, labour force participation ratio. LFPR divided by 100 for readability. Coefficient displayed with 95% confidence intervals.

Figure 3. Difference in predicted values in employment and hours worked between daughters of working versus homemaking mothers across the range of labor force participation ratios



Note: Results are based on Columns 4 in Table 2 and Table 3. LFPR = labor force participation ratio. Estimates displayed with 95% confidence intervals of differences in predicted values.

Figure 4. Predicted values of employment and hours worked by employment status of respondents' mothers across the range of labor force participation ratios



Note: Results are based on Columns 4 in Table 2 and Table 3. LFPR = labor force participation ratio; EM = mothers' employment status (1 = working mother, 0 = homemaking mother). Estimates displayed with 95% confidence intervals of predicted values.

Please note that the significant difference of Figure 3 does not mirror in Figure 4 given that Figure 3 shows the confidence intervals of the differences in predicted values, whereas Figure 4 displays the confidence intervals of the predicted values themselves.

These results also hold across a range of further specifications such as when including respondents' age or marital status at arrival, their mothers' vocational education as well as when only considering partnered respondents or the sample of observations with non-missing information on the labour force participation ratio (see Supplementary Tables S6, S8, S10, S12, and S14). Thus, the results support Mothers' and Countries' Influence Hypotheses (Hypotheses 1 and 2), though not significantly in case of Hypothesis 1. Furthermore, given that the employment of mothers' cushions societal effects in contexts of low female employment, there is evidence for the Effect Modifier Hypothesis (Hypothesis 3).

Table 3 presents the results of linear regressions on respondents' weekly hours worked.

This analysis covers 1,141 female migrants in the sample, who were employed at first interview. Models 1 to 3 show that neither the employment of respondents' mothers nor source countries' labour force participation ratios significantly impact female migrants' hours worked. Yet, Model 4, which additionally consider the interaction term, uncovers interesting dynamics. It shows that source countries' labour force participation ratios do not significantly impact respondents' weekly hours worked though the estimate's direction is as theoretically expected. By contrast, the interaction term between these two main explanatory variables is negative and significant. This implies that the labour force participation ratio affects the work hours of migrants, whose mother was employed when they were 15 years old, less. Figures 3 and 4 illustrate this graphically. It shows that daughters, who grew up in a context of low female relative to male employment, are less affected by that context when their mother was employed. A similar dynamic shows in contexts of high female employment.

Again, these results hold across a range of further specifications such as when including respondents' age or marital status at immigration, their mothers' vocational education as well as when only considering partnered respondents or the sample of observations with non-missing information on the labour force participation ratio (see Supplementary Tables S7, S9, S11, S13, and S15). Hence, the results contradict the Mothers' Influence as well as Countries' Influence Hypotheses (Hypotheses 1 and 2) but Hypothesis 3 is accepted given the negativity of the interaction term.

Discussion

This study considers female migrants' adolescence and their exposure to female employment in the familial and societal sphere throughout its course as a driver of their adult employment. By focusing on socialization, this study uniquely approaches female migrants and thus well complements previous studies on immigrants (in Germany):

Table 3. Linear regression estimates of weekly working hours

	(1)	(2)	(3)	(4)
EM [a]	-0.44		-0.40	-0.41
	(0.94)		(0.96)	(0.93)
LFPR [a]		-0.02	-0.02	0.06
		(0.03)	(0.03)	(0.04)
EM*LFPR				-0.12***
				(0.04)
Individual-level Control Variables				
Age	1.69***	1.72***	1.73***	1.72***
	(0.43)	(0.44)	(0.43)	(0.42)
Age squared	-22.86***	-23.18***	-23.32***	-23.28***
	(4.98)	(5.05)	(5.03)	(4.88)
Years since immigration	0.15	0.12	0.12	0.14
	(0.10)	(0.10)	(0.11)	(0.10)
Children (Ref: No children)				
Youngest child 0-6 years	-7.88***	-7.84***	-7.87***	-7.70***
	(1.16)	(1.15)	(1.17)	(1.19)
Youngest child 7-13 years	-8.11***	-8.11***	-8.13***	-8.22***
	(1.28)	(1.28)	(1.27)	(1.24)
Youngest child 14-18 years	-4.03*	-4.09*	-4.08*	-4.04*
	(1.80)	(1.75)	(1.76)	(1.74)
Youngest child > 18 years	-1.71	-1.82	-1.84	-1.92
	(1.68)	(1.70)	(1.67)	(1.65)
Partner in household (Ref: No partner in household)				
Partner in household is migrant from same country	-1.21	-1.30	-1.33	-1.42
	(1.17)	(1.13)	(1.16)	(1.17)
Partner in household is migrant from different country	-0.03	0.04	0.01	-0.07
	(1.92)	(1.92)	(1.95)	(1.94)
Partner in household is German	-2.53***	-2.42***	-2.44***	-2.58***
	(0.86)	(0.84)	(0.84)	(0.83)
Education (Ref: Primary)				
Secondary	4.02***	3.90*	3.93***	3.93*
	(1.48)	(1.50)	(1.48)	(1.53)
Post-secondary/Tertiary	5.40***	5.31***	5.36***	5.48***
	(1.31)	(1.30)	(1.29)	(1.33)
German skills (Ref: Poor)				
Medium	-0.73	-0.76	-0.74	-0.65
	(1.88)	(1.90)	(1.91)	(1.95)
Good	0.43	0.24	0.29	0.19
	(2.23)	(2.20)	(2.25)	(2.27)
Immigrant group (Ref: Repatriates)				
EU migrant	-0.57	-1.53	-1.59	-1.42
	(1.22)	(1.70)	(1.66)	(1.60)
Third-country nationals	-2.11+	-2.16+	-2.23+	-1.72
	(1.09)	(1.17)	(1.14)	(1.09)
German region (Ref: East)				

North	-3.56*	-3.58*	-3.59*	-3.50*
	(1.65)	(1.63)	(1.62)	(1.63)
South	-2.76	-2.67	-2.68	-2.65
	(1.91)	(1.90)	(1.90)	(1.92)
West	-3.60*	-3.54*	-3.56*	-3.59*
	(1.69)	(1.67)	(1.67)	(1.68)
Country-level Control Variables				
GPD p.c.		0.02	0.02	0.02
		(0.06)	(0.06)	(0.06)
Distance in km		-0.34	-0.34	-0.40+
		(0.23)	(0.23)	(0.23)
Constant	3.63	3.86	3.90	3.86
	(11.48)	(11.67)	(11.63)	(11.23)
N	1,141	1,141	1,141	1,141
Adjusted R2	0.10	0.10	0.10	0.10

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Whereas much is known about male and second-generation migrants, the guest worker period and ethnic German repatriates (Kogan, 2004; Luthra, 2013), female migrants remain largely understudied. Furthermore, this study extends existing insights on female migrants by showing that experiences made during their pre-migration adolescence matter for post-migration, adult employment. Accordingly, this study moves beyond common explanations of (female) migrant employment, which have largely focused on human capital factors as well as ethnic origin.

In this way, this study has produced results with implications for theory, research, and policy. First, this study shows that the employment status of mothers during their daughters' adolescence positively affects daughters beyond that point in time: if mothers worked, daughters are more likely to work though not significantly so and not for more hours per week. Second, this study shows that the societal context in which female migrants grew up matters for their adult involvement in market work: women who grew up in countries with a high relative to low labour force participation ratio, are more likely to work, though again not for more hours per week. Thus, the agents of socialization influence the extensive margin of female migrants' labour supply decision to a greater extent than its intensive margin. Still, in their direction, these two results mostly match the ideas of vertical and horizontal socialization

theory. With regard to future research, the explanatory power of horizontal socialization theory is particularly striking: while previous studies have mostly focused on parents when depicting the process of socialization (Van Putten et al., 2008; Platt and Polavieja, 2016), this study illustrates that societal dynamics also affect individuals' lives. Such macro-level socialization is meaningful as it alludes to social norms. Still, on the meso-level of socialization, schools, neighbourhoods and peers, whose value system might deviate from socialization efforts in family as well as society, can also exert a lasting influence on adolescents (Olivetti et al., 2016). Exploring these further agents of socialization is an interesting avenue for future research. The results are further relevant with respect to future inflows of female migrants: given that the labour force participation ratio across the globe is continually rising (Fernández, 2007), more mothers and more societies — with these two processes not being independent of one another — will expose their daughters to female employment. Hence, generation replacement in itself will lead to higher employment among female migrants. On the one hand, this conclusion should apply beyond the German context given that most of its and therefore this study's migrants arrive from Poland, Turkey, Russia and Kazakhstan and immigrants socialized in one of these countries reside worldwide (IOM, 2019). On the other hand, Germany's institutional peculiarities (see above) could hamper their broader applicability. This is especially with respect to its conservative, family-oriented policies that set incentives for part-time employment, which are less prevalent elsewhere.

Third, this study found vertical and horizontal agents of socialization to interact with each other: the employment of migrant women, whose mothers worked in their adolescence, was less affected by societal dynamics. However, socialization theory does not account for interacting socializing entities. In this regard, the concept of cross-pressures, which portrays adolescents in the middle of multiple reference groups, proved useful and necessary. This result further has policy implications for contexts characterized by sparse female employment: given

that societal dynamics are less influential for mi- grant women whose mothers worked, it can be hypothesized that working mothers function as role models in such contexts. The result thus implies that one female role model in the individuals' lives has the power to change her future. Still, research on role models remains limited.

In addition, familial and societal dynamics may not only influence female migrants' employment but might impact further spheres of their lives such as choice of partner and fertility decisions. Analysing these further spheres and their role in female migrants' labour market decisions is another promising avenue for research. Overall, this study thus highlights that individuals are deeply embedded in the dynamics they grew up in well beyond their youth highlighting the importance of research that looks at drivers of female (migrant) employment beyond human capital factors.

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Supplementary Material

Table S1. Countries by geographical region with sample size

Region	Countries	N	EM (Mean)	LFPR (Mean)	Immigration Cohorts			
					1975 - 1985	1985 - 1995	1995 - 2005	2005 - 2017
Northern Africa	Egypt	3	0.33	22.01		X		X
	Morocco	22	0.05	31.54	X		X	X
	Sudan	1	0	36.42		X		
	Tunisia	17	0.29	31.29		X		X
Eastern Africa	Kenya	8	0.38	85.57			X	X
	Mozambique	1	0	78.48				X
Middle Africa	Angola	1	1	55.00			X	
	Cameroon	6	0.83	80.01			X	X
Southern Africa	Botswana	1	1	55.43				X
	South Africa	2	1	69.79				X
Western Africa	Benin	1	0	64.37				X
	Ghana	6	0.67	100.84		X	X	X
	Nigeria	3	0.33	63.15			X	X
Caribbean	Cuba	8	0.75	59.13			X	X
	Dominican Rep.	2	0.50	51.72			X	X
Central America	Mexico	9	0.22	41.57			X	X
South America	Argentina	2	1	37.06		X		X
	Bolivia	2	0.5	67.64			X	
	Brazil	17	0.18	52.29		X	X	X
	Chile	2	0.5	46.01			X	X
	Colombia	6	0.17	56.95		X	X	X
	Ecuador	4	0.25	46.76		X	X	X
	Peru	6	0.50	48.62		X	X	X
	Venezuela	3	1	43.83		X		X
Northern America	Canada	4	0.50	69.74		X	X	X
	USA	17	0.65	67.65	X	X	X	X
Eastern Asia	China	15	0.87	83.11		X	X	X
	Hong Kong	1	0	60.76				X
	Japan	5	0.20	62.28		X	X	X
	Korea	1	0	62.20				X
	Mongolia	1	1	94.62				X
South-Eastern Asia	Cambodia	1	0	92.99				X
	Indonesia	2	0.50	52.56		X	X	
	Malaysia	2	0	51.18			X	X
	Myanmar	1	1	48.60		X		
	Philippines	14	0.57	56.44	X	X	X	X
	Thailand	20	0.70	81.28		X	X	X
	Vietnam	5	0.60	72.54		X	X	X
	Afghanistan	8	0.38	39.54		X	X	X

Southern Asia	Bangladesh	2	0	37.51		X		X
	India	19	0.21	39.03		X	X	X
	Iran	10	0.40	18.24		X	X	X
	Nepal	2	0.50	90.83			X	X
	Pakistan	12	0.08	17.58		X	X	X
	Sri Lanka	6	0.33	49.26		X	X	X
Central and Western Asia	Armenia	7	0.86	45.01		X	X	X
	Azerbaijan	6	0.50	36.94			X	X
	Georgia	11	0.55	62.32		X	X	X
	Iraq	8	0	12.94			X	X
	Israel	1	0	66.98			X	
	Jordan	3	0	23.63		X		X
	Kazakhstan	178	0.85	41.67	X	X	X	X
	Kuwait	1	0	48.10				X
	Kyrgyzstan	19	0.58	59.82		X	X	X
	Lebanon	8	0.13	33.04		X	X	X
	Saudi Arabia	1	0	22.91			X	
	Syria	7	0.43	17.22	X	X	X	X
	Tajikistan	4	0.75	47.03			X	X
	Turkey	146	0.15	45.43	X	X	X	X
	Uzbekistan	9	0.78	44.50		X	X	X
Eastern Europe	Belarus	19	0.84	83.98		X	X	X
	Bulgaria	72	0.75	84.25		X	X	X
	Czech Republic	20	0.90	78.47		X	X	X
	Hungary	40	0.80	75.27		X	X	X
	Moldavia	5	0.80	86.68			X	X
	Poland	335	0.73	76.87	X	X	X	X
	Romania	221	0.70	79.01		X	X	X
	Russia	215	0.86	80.89	X	X	X	X
	Slovakia	13	0.77	76.75			X	X
	Ukraine	36	0.86	84.67			X	X
Northern Europe	Denmark	3	1	74.37		X		X
	Estonia	2	1	78.29			X	X
	Finland	3	0.67	79.69	X		X	X
	Great Britain	9	0.67	63.43	X		X	X
	Ireland	3	0.67	55.57		X	X	X
	Latvia	10	0.70	74.35			X	X
	Lithuania	13	0.85	79.32			X	X
	Norway	2	1	80.71	X			X
	Sweden	4	1	88.72			X	X
Southern Europe	Albania	3	0.33	53.40			X	X
	Bosnia - Herzegovina	24	0.42	56.78		X	X	X
	Croatia	25	0.36	61.98	X	X	X	X
	Greece	47	0.60	52.87		X	X	X
	Italy	63	0.46	50.16	X	X	X	X
	Macedonia	17	0.41	58.14		X	X	X
	Portugal	16	0.38	63.09		X	X	X

	Serbia	28	0.46	59.26		X	X	X
	Slovenia	5	0.40	79.60				X
	Spain	44	0.52	52.40	X	X	X	X
Western Europe	Austria	13	0.85	62.39	X	X	X	X
	Belgium	4	0.50	61.25		X		X
	France	23	0.48	70.30	X	X	X	X
	Switzerland	4	0.50	60.57			X	X
	The Netherlands	13	0.62	50.99	X	X	X	X
Australia and New Zealand	Australia	1	0	66.27				X
	New Zealand	1	1	68.79				X
Polynesia	Samoa	1	0	51.99			X	

Note: Countries grouped into United Nations' geographic region. LFPR stands for labor force participation ratio, which is the female to male labor force participation rate.

Table S2. Sample size by SOEP sample

Sample	Sample Size	%	Cum. % [a]
A	17	0.83	0.83
B	19	0.93	1.76
C	2	0.10	1.86
D	6	0.29	2.15
E	4	0.20	2.35
F	168	8.21	10.56
G	13	0.64	11.20
H	24	1.17	12.37
I	39	1.91	14.28
J	133	6.50	20.78
K	50	2.44	23.44
L1	58	2.83	26.05
L2	25	1.22	27.27
L3	4	0.20	27.47
M1	792	38.69	66.16
M2	608	29.70	95.86
N	85	4.15	100
N	2,047		

Note: [a] Cum. = Cumulative

Table S3. Exclusion criteria and sample size

Exclusion Criterion	Sample Size
SOEP respondents interviewed at least once	93,728
First-generation immigrants	23,994
Female	11,509
Not a asylum claimant/refugee	7,932
Immigrated after age 18	5,793
Uninterruptedly lived with mother until age 16 [a]	3,445
Mother not sick or retired	3,414
No missing data on individual-level variables [b]	2,443
Age 15 after 1970	2,152
No missing data on country-level variables	2,047
N	2,047

Note: [a] This further excludes cases where residence until age 16 is unknown. There are many missing values on this variable because this questionnaire item was not part of the 1984 questionnaire, yet, in that year many migrants entered the SOEP for the first time. For these respondents, the questionnaire item was also not part of any of their later survey rounds. This accounts for 1,209 missing values. [b] Mothers' employment was not part of the 2010 and 2013 questionnaire, which accounts for 606 missing values.

Table S4. Missing mother information and sample characteristics

Sample Characteristics	Mean (Analytical Sample)	Mean (Full Sample)	Difference
Age	37.53	36.56	***
Years since immigration	8.87	8.78	
Children			
No children	0.22	0.21	
Youngest child 0-6 years	0.35	0.40	***
Youngest child 7-13 years	0.18	0.18	
Youngest child 14-18 years	0.10	0.09	
Youngest child > 18 years	0.15	0.12	***
Partner in household			
No partner in household	0.19	0.18	
Partner in household is migrant from same country	0.47	0.48	
Partner in household is migrant from different country	0.11	0.11	
Partner in household is German	0.23	0.23	
Education			
Primary	0.21	0.24	*
Secondary	0.28	0.29	
Post-secondary/Tertiary	0.51	0.47	**
Immigrant group			
Ethnic German repatriates	0.20	0.23	***
EU migrants	0.33	0.27	***
Third-country nationals	0.47	0.44	
German skills			
Poor	0.11	0.13	*
Medium	0.26	0.24	
Good	0.62	0.62	
German region			
North	0.10	0.10	
West	0.13	0.15	
East	0.35	0.33	
South	0.42	0.42	
GPD p.c.	8.46	8.50	
Distance in km	2.63	2.66	
N	2,047	3,283	

Note: Table compares the sample of respondents considered in the main documents to the sample of respondents that would have entered the analysis had mother's employment status been part of the biographical questionnaires in 1984, 2010 and 2013. Asterisks in Column "Difference" indicate significance of differences in means: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table S5. Sample size by survey year

Survey Year	Sample Size
2000	150
2001	11
2002	16
2003	7
2004	4
2005	9
2006	28
2007	3
2008	4
2009	39
2010	86
2011	135
2012	49
2013	766
2014	18
2015	587
2016	28
2017	107
N	2,047

Table S6. Robustness check: Logistic regression estimates of the likelihood of having paid work (Odds ratio) with age at arrival

	(1)	(2)	(3)	(4)
EM [a]	1.30^{+}		1.24	1.23^{+}
	(0.19)		(0.18)	(0.16)
LFPR [a]		1.01*	1.01^{+}	1.01*
		(0.00)	(0.00)	(0.01)
EM*LFPR				0.99^{+}
				(0.01)
Individual-level Control Variables				
Age at arrival	1.00	1.00	1.00	1.00
	(0.01)	(0.01)	(0.01)	(0.01)
Years since immigration	1.05***	1.06***	1.06***	1.06***
	(0.01)	(0.01)	(0.01)	(0.01)
Children (Ref: *No children*)				
Youngest child 0-6 years	0.19***	0.20***	0.20***	0.20***
	(0.04)	(0.04)	(0.04)	(0.04)
Youngest child 7-13 years	0.74	0.77	0.78	0.77
	(0.14)	(0.15)	(0.15)	(0.15)
Youngest child 14-18 years	0.96	0.99	0.99	0.99
	(0.33)	(0.35)	(0.36)	(0.36)
Youngest child > 18 years	0.74	0.76	0.78	0.76
	(0.16)	(0.17)	(0.17)	(0.17)
Partner in household (Ref: *No partner in household*)				
Partner in household is migrant from same country	0.94	0.96	0.97	0.96
	(0.12)	(0.12)	(0.12)	(0.12)
Partner in household is migrant from different country	1.00	0.98	1.00	0.98
	(0.25)	(0.24)	(0.25)	(0.24)
Partner in household is German	1.38^{+}	1.33	1.35	1.34
	(0.25)	(0.26)	(0.26)	(0.25)
Education (Ref: *Primary*)				
Secondary	1.33^{+}	1.34^{+}	1.31	1.32
	(0.23)	(0.23)	(0.23)	(0.22)
Post-secondary/Tertiary	1.50***	1.49***	1.45***	1.45***
	(0.21)	(0.21)	(0.20)	(0.21)
German skills (Ref: *Poor*)				
Medium	1.58***	1.61***	1.58***	1.58***
	(0.27)	(0.27)	(0.26)	(0.26)
Good	2.09***	2.10***	2.04***	2.01***
	(0.42)	(0.43)	(0.41)	(0.41)
Immigrant group (Ref: *Repatriate*)				
EU migrant	0.92	0.78	0.80	0.83
	(0.19)	(0.18)	(0.19)	(0.19)
Third-country nationals	0.71***	0.68***	0.71***	0.75***
	(0.08)	(0.08)	(0.09)	(0.08)
German region (Ref: *East*)				
North	0.92	0.95	0.96	0.97
	(0.18)	(0.18)	(0.19)	(0.19)

South	1.70***	1.67***	1.70***	1.71***
	(0.27)	(0.26)	(0.27)	(0.27)
West	1.25	1.27	1.29	1.30
	(0.21)	(0.21)	(0.22)	(0.22)
Country-level Control Variables				
GPD p.c.		1.02*	1.02*	1.02*
		(0.01)	(0.01)	(0.01)
Distance in km		1.02	1.02	1.01
		(0.04)	(0.04)	(0.04)
N	2,038	2,038	2,038	2,038
Loglikelihood	-1,149.65	-1,145.31	-1,143.59	-1,141.53

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table S7. Robustness check: Linear regression estimates of weekly hours worked with age at arrival

	(1)	(2)	(3)	(4)
EM [a]	-0.20		-0.16	-0.16
	(0.94)		(0.95)	(0.93)
LFPR [a]		-0.02	-0.01	0.06
		(0.03)	(0.03)	(0.04)
EM*LFPR				-0.12***
				(0.04)
Individual-level Control Variables				
Age at arrival	-0.09	-0.09	-0.09	-0.09
	(0.09)	(0.09)	(0.08)	(0.08)
Years since immigration	0.06	0.04	0.04	0.06
	(0.14)	(0.13)	(0.14)	(0.13)
Children (Ref: *No children*)				
Youngest child 0-6 years	-6.92***	-6.87***	-6.88***	-6.70***
	(1.19)	(1.21)	(1.22)	(1.25)
Youngest child 7-13 years	-6.56***	-6.52***	-6.53***	-6.62***
	(1.36)	(1.38)	(1.37)	(1.34)
Youngest child 14-18 years	-2.94	-2.95	-2.94	-2.90
	(1.87)	(1.84)	(1.86)	(1.84)
Youngest child > 18 years	-2.97+	-3.06+	-3.07+	-3.15+
	(1.75)	(1.79)	(1.77)	(1.74)
Partner in household (Ref: *No partner in household*)				
Partner in household is migrant from same country	-1.12	-1.21	-1.22	-1.31
	(1.08)	(1.03)	(1.05)	(1.06)
Partner in household is migrant from different country	0.28	0.33	0.31	0.23
	(1.88)	(1.89)	(1.91)	(1.90)
Partner in household is German	-2.18***	-2.09*	-2.10*	-2.24***
	(0.81)	(0.80)	(0.81)	(0.80)
Education (Ref: *Primary*)				
Secondary	3.59***	3.49*	3.50*	3.51*
	(1.35)	(1.35)	(1.34)	(1.40)
Post-secondary/Tertiary	5.42***	5.36***	5.38***	5.51***
	(1.32)	(1.29)	(1.30)	(1.34)
German skills (*Ref: Poor*)				
Medium	-0.24	-0.24	-0.23	-0.14
	(1.85)	(1.86)	(1.88)	(1.91)
Good	0.96	0.84	0.86	0.76
	(2.17)	(2.14)	(2.18)	(2.21)
Immigrant group (Ref: *Repatriates*)				
EU migrant	-0.50	-1.41	-1.43	-1.26
	(1.26)	(1.75)	(1.71)	(1.65)
Third-country nationals	-1.99+	-2.07+	-2.10+	-1.59
	(1.10)	(1.18)	(1.14)	(1.11)
German region (Ref: *East*)				
North	-3.23+	-3.24+	-3.24*	-3.16+
	(1.66)	(1.63)	(1.63)	(1.64)

South	-2.80	-2.71	-2.72	-2.69
	(1.96)	(1.96)	(1.96)	(1.98)
West	-3.37^{+}	-3.32^{+}	-3.32^{+}	-3.36^{+}
	(1.73)	(1.71)	(1.71)	(1.72)
Country-level Control Variables				
GPD p.c.		0.03	0.03	0.02
		(0.06)	(0.06)	(0.06)
Distance in km		-0.29	-0.29	-0.35
		(0.23)	(0.23)	(0.23)
Constant	35.37***	36.00***	36.09***	35.99***
	(5.18)	(5.26)	(5.32)	(5.14)
N	1,141	1,141	1,141	1,141
Adjusted R2	0.08	0.08	0.08	0.09

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Table S8. Robustness check: Logistic regression estimates of the likelihood of having paid work (Odds ratio) with marital status at arrival

	(1)	(2)	(3)	(4)
EM [a]	1.21		1.16	1.15
	(0.18)		(0.17)	(0.16)
LFPR [a]		1.01*	1.01*	1.01*
		(0.00)	(0.00)	(0.01)
EM*LFPR				0.99
				(0.01)
Individual-level Control Variables				
Age	1.21***	1.21***	1.21***	1.21***
	(0.06)	(0.06)	(0.06)	(0.06)
Age squared	0.08***	0.09***	0.09***	0.09***
	(0.05)	(0.05)	(0.05)	(0.06)
Years since immigration	1.05***	1.05***	1.05***	1.05***
	(0.01)	(0.01)	(0.01)	(0.02)
Marital status at arrival	0.86	0.91	0.91	0.92
	(0.09)	(0.09)	(0.09)	(0.09)
Children (Ref: *No children*)				
Youngest child 0-6 years	0.17***	0.17***	0.17***	0.17***
	(0.04)	(0.04)	(0.04)	(0.04)
Youngest child 7-13 years	0.61*	0.63*	0.64*	0.63*
	(0.13)	(0.14)	(0.14)	(0.14)
Youngest child 14-18 years	0.76	0.78	0.78	0.77
	(0.27)	(0.28)	(0.29)	(0.29)
Youngest child > 18 years	0.92	0.93	0.94	0.92
	(0.23)	(0.24)	(0.24)	(0.24)
Education (Ref: *Primary*)				
Secondary	1.41*	1.40*	1.38+	1.39+
	(0.23)	(0.23)	(0.23)	(0.23)
Post-secondary/Tertiary	1.53***	1.51***	1.48***	1.48***
	(0.22)	(0.22)	(0.22)	(0.22)
German skills (Ref: *Poor*)				
Medium	1.42*	1.42*	1.40*	1.40*
	(0.20)	(0.20)	(0.19)	(0.19)
Good	1.91***	1.88***	1.85***	1.82***
	(0.33)	(0.33)	(0.31)	(0.31)
Immigrant group (Ref: *Repatriate*)				
EU migrant	0.91	0.76	0.77	0.80
	(0.19)	(0.19)	(0.20)	(0.19)
Third-country nationals	0.74*	0.71*	0.73*	0.77+
	(0.10)	(0.12)	(0.12)	(0.11)
German region (Ref: *East*)				
North	0.92	0.95	0.96	0.96
	(0.18)	(0.19)	(0.19)	(0.19)
South	1.71***	1.69***	1.71***	1.72***
	(0.28)	(0.27)	(0.28)	(0.28)
West	1.22	1.25	1.26	1.27
	(0.22)	(0.22)	(0.24)	(0.23)

Country-level Control Variables				
GPD p.c.		1.02*	1.02*	1.02*
		(0.01)	(0.01)	(0.01)
Distance in km		1.01	1.01	1.01
		(0.04)	(0.04)	(0.04)
N	1,901	1,901	1,901	1,901
Loglikelihood	-1,069.78	-1,064.27	-1,063.51	-1,062.15

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Overall, 137 respondents did not provide information on their marital status at immigration.

Table S9. Robustness check: Linear regression estimates of weekly hours worked with marital status at arrival

	(1)	(2)	(3)	(4)
EM [a]	-0.81		-0.66	-0.68
	(1.01)		(1.05)	(0.92)
LFPR [a]		-0.04	-0.04	0.05
		(0.03)	(0.03)	(0.04)
EM*LFPR				-0.13***
				(0.04)
Individual-level Control Variables				
Age	1.71***	1.74***	1.75***	1.75***
	(0.46)	(0.47)	(0.46)	(0.45)
Age squared	-22.73***	-23.11***	-23.28***	-23.28***
	(5.32)	(5.51)	(5.45)	(5.27)
Years since immigration	0.08	0.04	0.04	0.05
	(0.11)	(0.11)	(0.11)	(0.11)
Marital status at arrival	-2.01	-1.93	-1.95	-1.96
	(1.22)	(1.25)	(1.23)	(1.20)
Children (Ref: *No children*)				
Youngest child 0-6 years	-7.04***	-7.07***	-7.14***	-6.96***
	(1.39)	(1.38)	(1.42)	(1.45)
Youngest child 7-13 years	-7.19***	-7.27***	-7.31***	-7.39***
	(1.48)	(1.47)	(1.49)	(1.47)
Youngest child 14-18 years	-2.93*	-3.11*	-3.11*	-3.06*
	(1.47)	(1.47)	(1.47)	(1.47)
Youngest child > 18 years	-1.35	-1.53	-1.56	-1.65
	(1.61)	(1.67)	(1.66)	(1.65)
Education (Ref: *Primary*)				
Secondary	5.11***	5.02***	5.07***	5.08***
	(1.40)	(1.40)	(1.37)	(1.43)
Post-secondary/Tertiary	6.08***	6.00***	6.10***	6.21***
	(1.37)	(1.36)	(1.35)	(1.40)
German skills (*Ref: Poor*)				
Medium	-0.94	-0.99	-0.93	-0.86
	(1.83)	(1.86)	(1.87)	(1.94)
Good	0.17	0.00	0.09	-0.02
	(2.40)	(2.35)	(2.41)	(2.46)
Immigrant group (Ref: *Repatriates*)				
EU migrant	-1.22	-1.99	-2.07	-1.87
	(1.56)	(2.00)	(1.94)	(1.91)
Third-country nationals	-2.99*	-2.90*	-3.00***	-2.47*
	(1.15)	(1.17)	(1.10)	(1.10)
German region (Ref: *East*)				
North	-3.84*	-3.99*	-4.01*	-3.90*
	(1.76)	(1.78)	(1.77)	(1.78)
South	-2.70	-2.60	-2.63	-2.59
	(1.77)	(1.76)	(1.77)	(1.80)
West	-3.48*	-3.45*	-3.47*	-3.49*
	(1.62)	(1.60)	(1.60)	(1.62)

Country-level Control Variables				
GPD p.c.		0.01	0.01	0.01
		(0.06)	(0.06)	(0.06)
Distance in km		-0.35	-0.35	-0.40^{+}
		(0.24)	(0.24)	(0.24)
Constant	2.70	2.87	2.97	2.79
	(11.77)	(12.07)	(12.00)	(11.54)
N	1,054	1,054	1,054	1,054
Adjusted R2	0.10	0.10	0.10	0.11

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001. Overall, 137 respondents did not provide information on their marital status at immigration.

Table S10. Robustness check: Logistic regression estimates of the likelihood of having paid work (Odds ratio) with mothers' vocational education

	(1)	(2)	(3)	(4)
EM [a]	1.30		1.26	1.25
	(0.22)		(0.21)	(0.19)
LFPR [a]		1.01*	1.01*	1.01*
		(0.00)	(0.00)	(0.01)
EM*LFPR				0.99
				(0.01)
Individual-level Control Variables				
Age	1.23***	1.24***	1.23***	1.23***
	(0.05)	(0.05)	(0.05)	(0.05)
Age squared	0.06***	0.06***	0.06***	0.06***
	(0.03)	(0.03)	(0.03)	(0.03)
Years since immigration	1.05***	1.05***	1.06***	1.06***
	(0.01)	(0.01)	(0.01)	(0.01)
Children (Ref: *No children*)				
Youngest child 0-6 years	0.17***	0.17***	0.18***	0.18***
	(0.03)	(0.03)	(0.03)	(0.03)
Youngest child 7-13 years	0.67*	0.70+	0.70+	0.69+
	(0.13)	(0.14)	(0.14)	(0.14)
Youngest child 14-18 years	0.87	0.89	0.90	0.89
	(0.28)	(0.29)	(0.30)	(0.30)
Youngest child > 18 years	1.00	1.03	1.03	1.02
	(0.22)	(0.24)	(0.24)	(0.24)
Partner in household (Ref: *No partner in household*)				
Partner in household is migrant from same country	0.91	0.93	0.93	0.92
	(0.11)	(0.12)	(0.11)	(0.11)
Partner in household is migrant from different country	0.95	0.95	0.96	0.94
	(0.24)	(0.24)	(0.24)	(0.23)
Partner in household is German	1.33	1.28	1.30	1.29
	(0.24)	(0.25)	(0.25)	(0.24)
Education (Ref: *Primary*)				
Secondary	1.40+	1.40+	1.39	1.39+
	(0.27)	(0.28)	(0.28)	(0.28)
Post-secondary/Tertiary	1.43*	1.40*	1.40*	1.40*
	(0.23)	(0.22)	(0.22)	(0.22)
German skills (Ref: *Poor*)				
Medium	1.49*	1.52*	1.49*	1.49*
	(0.26)	(0.27)	(0.26)	(0.27)
Good	1.89***	1.91***	1.86***	1.83***
	(0.38)	(0.40)	(0.38)	(0.38)
Immigrant group (Ref: *Repatriate*)				
EU migrant	0.93	0.80	0.83	0.85
	(0.17)	(0.18)	(0.19)	(0.19)
Third-country nationals	0.71***	0.68***	0.71***	0.75*
	(0.07)	(0.09)	(0.09)	(0.08)

German region (Ref: *East*)				
North	0.97	0.99	1.01	1.02
	(0.19)	(0.20)	(0.21)	(0.21)
South	1.83***	1.79***	1.82***	1.84***
	(0.32)	(0.32)	(0.32)	(0.32)
West	1.29	1.30	1.33	1.34
	(0.23)	(0.23)	(0.24)	(0.24)
VM [a] (Ref: No vocational education)				
Vocational education	1.01	1.05	0.98	0.97
	(0.17)	(0.14)	(0.16)	(0.16)
University degree	1.20	1.22	1.13	1.13
	(0.24)	(0.22)	(0.22)	(0.22)
Country-level Control Variables				
GPD p.c.		1.02*	1.02*	1.02*
		(0.01)	(0.01)	(0.01)
Distance in km		1.03	1.03	1.02
		(0.04)	(0.04)	(0.04)
N	1,934	1,934	1,934	1,934
Loglikelihood	-1,080.03	-1,076.49	-1,074.85	-1,073.29

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio; VM = mothers' vocational education. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Overall, 106 respondents did not provide information on their marital status at immigration.

Table S11. Robustness check: Linear regression estimates of weekly working hours with mothers' vocational education

	(1)	(2)	(3)	(4)
EM [a]	-1.14		-1.10	-1.12
	(1.04)		(1.07)	(0.99)
LFPR [a]		-0.02	-0.02	0.06
		(0.02)	(0.03)	(0.04)
EM*LFPR				-0.13***
				(0.04)
Individual-level Control Variables				
Age	1.60***	1.62***	1.64***	1.64***
	(0.37)	(0.39)	(0.38)	(0.38)
Age squared	-22.20***	-22.40***	-22.65***	-22.62***
	(4.29)	(4.44)	(4.39)	(4.31)
Years since immigration	0.16	0.13	0.13	0.14
	(0.10)	(0.11)	(0.11)	(0.10)
Children (Ref: *No children*)				
Youngest child 0-6 years	-7.87***	-7.79***	-7.88***	-7.64***
	(1.21)	(1.20)	(1.24)	(1.27)
Youngest child 7-13 years	-7.98***	-7.96***	-8.01***	-8.05***
	(1.29)	(1.28)	(1.28)	(1.26)
Youngest child 14-18 years	-3.24+	-3.30+	-3.29+	-3.26+
	(1.88)	(1.84)	(1.84)	(1.82)
Youngest child > 18 years	-0.75	-0.86	-0.89	-0.95
	(1.86)	(1.85)	(1.83)	(1.79)
Partner in household (Ref: *No partner in household*)				
Partner in household is migrant from same country	-1.09	-1.19	-1.22	-1.33
	(0.99)	(0.97)	(0.96)	(0.96)
Partner in household is migrant from different country	0.11	0.19	0.13	-0.04
	(1.91)	(1.93)	(1.92)	(1.91)
Partner in household is German	-2.50***	-2.36***	-2.41***	-2.56***
	(0.82)	(0.82)	(0.81)	(0.81)
Education (Ref: *Primary*)				
Secondary	4.07***	4.04***	4.05***	4.11***
	(1.29)	(1.32)	(1.29)	(1.36)
Post-secondary/Tertiary	5.25***	5.24***	5.26***	5.42***
	(1.25)	(1.28)	(1.25)	(1.28)
German skills (*Ref: Poor*)				
Medium	-1.14	-1.24	-1.17	-1.12
	(1.72)	(1.77)	(1.76)	(1.81)
Good	0.16	-0.10	0.01	-0.15
	(2.05)	(2.04)	(2.07)	(2.11)
Immigrant group (Ref: *Repatriates*)				
EU migrant	-0.89	-1.70	-1.86	-1.66
	(1.16)	(1.56)	(1.54)	(1.49)
Third-country nationals	-2.21*	-2.15+	-2.33*	-1.79
	(1.09)	(1.17)	(1.14)	(1.10)

German region (Ref: *East*)				
North	-3.50*	-3.54*	-3.54*	-3.42*
	(1.56)	(1.55)	(1.54)	(1.55)
South	-2.51	-2.40	-2.42	-2.35
	(1.72)	(1.71)	(1.71)	(1.73)
West	-3.57*	-3.48*	-3.52*	-3.52*
	(1.73)	(1.72)	(1.71)	(1.72)
VM [a] (Ref: No vocational education)				
Vocational education	1.66+	1.27	1.61+	1.56+
	(0.92)	(0.96)	(0.94)	(0.93)
University degree	1.68	1.26	1.67	1.74
	(1.46)	(1.21)	(1.44)	(1.44)
Country-level Control Variables				
GPD p.c.		0.02	0.02	0.02
		(0.06)	(0.06)	(0.06)
Distance in km		-0.33	-0.33	-0.39
		(0.24)	(0.24)	(0.24)
Constant	6.14	6.28	6.42	6.35
	(9.54)	(9.79)	(9.64)	(9.30)
N	1,089	1,089	1,089	1,089
Adjusted R2	0.11	0.11	0.11	0.11

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio; VM = mothers' vocational education. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Overall, 106 respondents did not provide information on their marital status at immigration.

Table S12. Robustness check: Logistic regression estimates of the likelihood of having paid work (Odds ratio), sample restricted to partnered respondents

	(1)	(2)	(3)	(4)
EM [a]	1.24		1.20	1.19
	(0.19)		(0.19)	(0.17)
LFPR [a]		1.01*	1.01+	1.01+
		(0.00)	(0.00)	(0.01)
EM*LFPR				0.99
				(0.01)
Individual-level Control Variables				
Age	1.20***	1.20***	1.19***	1.19***
	(0.06)	(0.06)	(0.06)	(0.06)
Age squared	0.10***	0.10***	0.11***	0.11***
	(0.06)	(0.07)	(0.07)	(0.07)
Years since immigration	1.05***	1.05***	1.05***	1.05***
	(0.02)	(0.02)	(0.01)	(0.02)
Children (Ref: *No children*)				
Youngest child 0-6 years	0.17***	0.17***	0.17***	0.17***
	(0.04)	(0.04)	(0.04)	(0.04)
Youngest child 7-13 years	0.68*	0.71+	0.71+	0.70+
	(0.13)	(0.13)	(0.14)	(0.14)
Youngest child 14-18 years	0.78	0.80	0.81	0.80
	(0.29)	(0.31)	(0.31)	(0.31)
Youngest child > 18 years	0.83	0.85	0.85	0.83
	(0.27)	(0.27)	(0.27)	(0.27)
Marital status (Ref: Relationship)	0.55***	0.59***	0.60*	0.59*
	(0.11)	(0.12)	(0.13)	(0.12)
Education (Ref: *Primary*)				
Secondary	1.29	1.29	1.26	1.27
	(0.20)	(0.20)	(0.20)	(0.20)
Post-secondary/Tertiary	1.31*	1.27*	1.23+	1.24+
	(0.16)	(0.15)	(0.15)	(0.15)
German skills (Ref: *Poor*)				
Medium	1.64*	1.65***	1.62*	1.62*
	(0.32)	(0.32)	(0.32)	(0.32)
Good	2.20***	2.17***	2.11***	2.08***
	(0.47)	(0.47)	(0.45)	(0.45)
Immigrant group (Ref: *Repatriate*)				
EU migrant	0.83	0.65	0.67	0.68
	(0.22)	(0.20)	(0.21)	(0.20)
Third-country nationals	0.73	0.68	0.71	0.74
	(0.15)	(0.16)	(0.16)	(0.16)
German region (Ref: *East*)				
North	0.91	0.93	0.94	0.95
	(0.21)	(0.22)	(0.23)	(0.23)
South	1.85***	1.80***	1.82***	1.83***
	(0.40)	(0.37)	(0.38)	(0.39)
West	1.19	1.20	1.22	1.22
	(0.24)	(0.23)	(0.24)	(0.24)

Country-level Control Variables				
GPD p.c.		1.02***	1.03***	1.02***
		(0.01)	(0.01)	(0.01)
Distance in km		1.01	1.01	1.01
		(0.04)	(0.04)	(0.04)
N	1,649	1,649	1,649	1,649
Loglikelihood	-907.99	-902.07	-901.06	-900.09

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Table S13. Robustness check: Linear regression estimates of weekly working hours, sample restricted to partnered respondents

	(1)	(2)	(3)	(4)
EM [a]	-0.54		-0.45	-0.52
	(1.11)		(1.14)	(1.04)
LFPR [a]		-0.03	-0.03	0.05
		(0.03)	(0.03)	(0.04)
EM*LFPR				-0.13***
				(0.04)
Individual-level Control Variables				
Age	1.05*	1.09*	1.10*	1.09*
	(0.43)	(0.44)	(0.43)	(0.42)
Age squared	-14.86***	-15.39***	-15.51***	-15.36***
	(5.15)	(5.20)	(5.15)	(5.01)
Years since immigration	0.12	0.10	0.10	0.11
	(0.11)	(0.11)	(0.11)	(0.11)
Children (Ref: *No children*)				
Youngest child 0-6 years	-6.36***	-6.49***	-6.53***	-6.38***
	(1.27)	(1.28)	(1.28)	(1.30)
Youngest child 7-13 years	-6.14***	-6.33***	-6.35***	-6.48***
	(1.90)	(1.88)	(1.88)	(1.82)
Youngest child 14-18 years	-2.69	-3.00	-2.98	-2.96
	(2.06)	(2.03)	(2.05)	(2.05)
Youngest child > 18 years	-2.27	-2.57	-2.59	-2.74
	(2.68)	(2.73)	(2.71)	(2.63)
Marital status (Ref: Relationship)	-5.60***	-5.78***	-5.79***	-5.74***
	(1.08)	(1.19)	(1.17)	(1.17)
Education (Ref: *Primary*)				
Secondary	5.64***	5.63***	5.66***	5.73***
	(1.16)	(1.18)	(1.15)	(1.20)
Post-secondary/Tertiary	6.38***	6.42***	6.49***	6.65***
	(1.50)	(1.46)	(1.49)	(1.54)
German skills (*Ref: Poor*)				
Medium	-0.49	-0.59	-0.54	-0.53
	(1.98)	(2.03)	(2.03)	(2.07)
Good	1.33	1.13	1.20	1.02
	(2.09)	(2.08)	(2.13)	(2.16)
Immigrant group (Ref: *Repatriates*)				
EU migrant	-1.34	-1.53	-1.58	-1.44
	(1.48)	(1.91)	(1.87)	(1.84)
Third-country nationals	-2.63*	-2.57*	-2.64*	-2.13+
	(1.25)	(1.27)	(1.21)	(1.23)
German region (Ref: *East*)				
North	-4.50*	-4.69*	-4.69*	-4.59*
	(2.02)	(2.01)	(2.00)	(2.02)
South	-2.70	-2.68	-2.70	-2.63
	(1.79)	(1.77)	(1.78)	(1.80)
West	-3.55+	-3.62*	-3.63*	-3.66*
	(1.84)	(1.81)	(1.80)	(1.83)

Country-level Control Variables				
GPD p.c.		-0.04	-0.04	-0.04
		(0.07)	(0.07)	(0.07)
Distance in km		-0.28	-0.27	-0.34
		(0.27)	(0.27)	(0.27)
Constant	18.19^{+}	18.69^{+}	18.75^{+}	18.75^{+}
	(10.37)	(10.65)	(10.63)	(10.20)
N	893	893	893	893
Adjusted R2	0.11	0.11	0.11	0.12

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Table S14. Robustness check: Logistic regression estimates of the likelihood of having paid work (Odds ratio), sample restricted to non-missing values on labor force participation ratios

	(1)	(2)	(3)	(4)
EM [a]	1.22		1.05	1.06
	(0.26)		(0.22)	(0.19)
LFPR [a]		1.02***	1.02*	1.03***
		(0.01)	(0.01)	(0.01)
EM*LFPR				0.98+
				(0.01)
Individual-level Control Variables				
Age	1.24***	1.25***	1.25***	1.24***
	(0.09)	(0.09)	(0.09)	(0.09)
Age squared	1.00***	1.00***	1.00***	1.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Years since immigration	1.07***	1.07***	1.07***	1.07***
	(0.02)	(0.02)	(0.02)	(0.02)
Children (Ref: *No children*)				
Youngest child 0-6 years	0.14***	0.13***	0.13***	0.13***
	(0.04)	(0.04)	(0.04)	(0.04)
Youngest child 7-13 years	0.56+	0.56+	0.56+	0.55+
	(0.18)	(0.18)	(0.18)	(0.18)
Youngest child 14-18 years	0.83	0.82	0.82	0.86
	(0.34)	(0.36)	(0.36)	(0.40)
Youngest child > 18 years	0.79	0.70	0.71	0.66
	(0.34)	(0.29)	(0.29)	(0.28)
Partner in household (Ref: *No partner in household*)				
Partner in household is migrant from same country	1.23	1.27	1.28	1.27
	(0.29)	(0.31)	(0.32)	(0.33)
Partner in household is migrant from different country	0.96	0.91	0.92	0.92
	(0.38)	(0.36)	(0.37)	(0.37)
Partner in household is German	1.81*	1.88*	1.89*	1.90*
	(0.53)	(0.56)	(0.56)	(0.57)
Education (Ref: *Primary*)				
Secondary	1.50	1.42	1.41	1.43
	(0.49)	(0.45)	(0.45)	(0.44)
Post-secondary/Tertiary	1.72*	1.58+	1.57+	1.60+
	(0.42)	(0.39)	(0.38)	(0.39)
German skills (Ref: *Poor*)				
Medium	1.46	1.41	1.41	1.37
	(0.39)	(0.36)	(0.35)	(0.33)
Good	1.61	1.47	1.46	1.41
	(0.48)	(0.41)	(0.41)	(0.39)
Immigrant group (Ref: *Repatriate*)				
EU migrant	1.07	1.05	1.05	1.00
	(0.41)	(0.35)	(0.35)	(0.32)
Third-country nationals	0.91	1.12	1.12	1.12
	(0.30)	(0.31)	(0.33)	(0.31)

German region (Ref: *East*)				
North	1.07	1.10	1.11	1.15
	(0.30)	(0.32)	(0.33)	(0.34)
South	1.89***	1.86***	1.86***	1.90***
	(0.39)	(0.38)	(0.39)	(0.39)
West	1.20	1.25	1.26	1.30
	(0.24)	(0.24)	(0.25)	(0.25)
Country-level Control Variables				
GPD p.c.		1.02*	1.02*	1.02*
		(0.01)	(0.01)	(0.01)
Distance in km		0.98	0.98	0.97
		(0.05)	(0.05)	(0.05)
N	976	976	976	976
Loglikelihood	-531.93	-525.59	-525.55	-523.79

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001.

Table S15. Robustness check: Linear regression estimates of weekly working hours, sample restricted to non-missing values on labor force participation ratios

	(1)	(2)	(3)	(4)
EM [a]	-1.42		-1.45	-1.36
	(1.30)		(1.36)	(1.41)
LFPR [a]		-0.01	0.00	0.13*
		(0.04)	(0.04)	(0.05)
EM*LFPR				-0.22***
				(0.08)
Individual-level Control Variables				
Age	1.18	1.21	1.24	1.19
	(0.80)	(0.79)	(0.80)	(0.77)
Age squared	-0.02	-0.02	-0.02	-0.02
	(0.01)	(0.01)	(0.01)	(0.01)
Years since immigration	0.17	0.15	0.15	0.14
	(0.16)	(0.17)	(0.17)	(0.16)
Children (Ref: *No children*)				
Youngest child 0-6 years	-7.54***	-7.46***	-7.63***	-7.76***
	(1.50)	(1.49)	(1.53)	(1.61)
Youngest child 7-13 years	-8.74***	-8.67***	-8.84***	-8.88***
	(2.01)	(2.05)	(2.14)	(2.18)
Youngest child 14-18 years	-5.86*	-6.03*	-6.01*	-5.61*
	(2.58)	(2.62)	(2.66)	(2.68)
Youngest child > 18 years	-3.12	-3.06	-3.30	-4.09
	(4.13)	(4.33)	(4.27)	(4.20)
Partner in household (Ref: *No partner in household*)				
Partner in household is migrant from same country	-1.14	-1.18	-1.23	-1.24
	(1.02)	(1.07)	(1.06)	(1.04)
Partner in household is migrant from different country	1.46	1.68	1.54	1.57
	(2.85)	(2.80)	(2.80)	(2.71)
Partner in household is German	-3.28***	-3.05*	-3.12*	-3.08*
	(1.19)	(1.21)	(1.24)	(1.19)
Education (Ref: *Primary*)				
Secondary	1.55	1.22	1.41	1.21
	(1.88)	(1.93)	(1.91)	(1.89)
Post-secondary/Tertiary	3.36+	3.09+	3.28+	3.30+
	(1.72)	(1.79)	(1.79)	(1.82)
German skills (*Ref: Poor*)				
Medium	-1.28	-1.29	-1.20	-1.20
	(2.57)	(2.53)	(2.52)	(2.73)
Good	-0.68	-0.93	-0.84	-1.01
	(2.77)	(2.66)	(2.70)	(2.87)
Immigrant group (Ref: *Repatriates*)				
EU migrant	-4.07+	-4.76+	-4.65+	-4.98+
	(2.14)	(2.70)	(2.67)	(2.81)
Third-country nationals	-8.71***	-8.20***	-8.21***	-7.87***
	(2.31)	(2.47)	(2.46)	(2.46)

German region (Ref: *East*)				
North	0.18	0.30	0.24	0.69
	(2.12)	(2.02)	(2.04)	(2.06)
South	0.13	0.31	0.27	0.73
	(2.38)	(2.38)	(2.40)	(2.50)
West	-2.03	-1.82	-1.84	-1.42
	(1.80)	(1.80)	(1.81)	(1.82)
Country-level Control Variables				
GPD p.c.		0.03	0.03	0.02
		(0.07)	(0.07)	(0.07)
Distance in km		-0.36	-0.35	-0.43
		(0.32)	(0.32)	(0.33)
Constant	12.88	11.73	11.83	12.90
	(16.81)	(16.87)	(16.91)	(16.02)
N	530	530	530	530
Adjusted R2	0.13	0.12	0.12	0.13

Note: [a] EM = mothers' employment status; LFPR = labor force participation ratio. Standard errors in parentheses, clustered on source country level. All regressions include survey year fixed effects. + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

CHAPTER 5

LESSONS FROM A GENDERED LOOK AT IMMIGRANT EMPLOYMENT

The overarching aim of this dissertation is to contribute to the following research question: *Which factors determine the employment of immigrant women and men?* To date, conclusive evidence on this question is still largely missing. Rather, integration theory is guided by a male migrant stereotype and, thus, remains silent on gender issues. Likewise, existing empirical analyses mostly control for gender in their analyses rather than discussing gender-specific dynamics in detail. Only a few studies deviate from this general pattern (see Chapter 1). Hence, this dissertation takes an important step toward improving the understanding of the employment of immigrant women and men in Germany.

This chapter concludes this dissertation. Therefore, it first summarizes the key results of this dissertation's three empirical papers. Thereafter, it discusses this dissertation's results in light of the existing literature, points to its limitations, and, finally, closes by outlining future research avenues for gendered integration research.

Key Results

In three papers, this dissertation looks at the employment of immigrant women and men in Germany. Therefore, this dissertation first develops a framework for understanding migration, gender, and employment in its first chapter. In Chapter 1, this dissertation synthesizes Eisenstadt's (1954) model of post-migration life with sociological insights on gender and employment. Leading from this theoretical synthesis, this dissertation argues that the migration decision and process reproduce and reinforce existing gender gaps on the labor market. In its empirical chapters (Chapters 2-4), this dissertation explores three potential theoretical mechanisms that Chapter 1 identifies as part of its key argument (see Table 1).

In its first paper, this dissertation looks at couples' migration decisions and how these affect the employment of immigrant women and men in Germany (Krieger, 2020b). Hence, this paper provides evidence for selection at the household level. The paper develops its hypotheses from the Tied Migration Theory (Mincer, 1978). Following the theory, those women and men who initiate the migration of their families should fare better on the host country labor market compared to their partners. Furthermore, integrating normative ideas of gender into the Tied Migration Theory translates into the hypotheses that women who initiate migration need to expect comparatively higher gains from it than men. Yet, the results show a mixed picture: whereas immigrant men who initiate a move are indeed more likely to be employed compared to their counterparts, the position that immigrant women take in the migration decision does not matter for their later employment. Thus, the first paper illustrates that migration decisions have gender-specific effects that are contrary to theoretical expectations (see Table 1).

In its second paper, this dissertation considers changes in women's and men's time spent on domestic work over the course of their immigration to Germany (Krieger & Salikutluk, 2020). Therefore, it relies on theoretical notions of Neoclassical Economic Theory, Bargaining Theory, as well as of Gender Ideology and Construction but integrates specific aspects of the migration process into these ideas. This leads the paper to hypothesize that immigrant women, relative to men, should shoulder a greater amount of housework after immigration. Yet, the results show the contrary: the amount of domestic work rises starkly for men as well as women after migration. This stark increase for men can be mostly attributed to running errands. In fact, the paper expected this result since men, as principal movers, will usually be responsible for visits to the authorities, which take up significant time. Accordingly, the second paper of this dissertation uncovers gender-specific patterns, yet again partly contrary to its formulated expectations (see Table 1). Hence, the employment of immigrant women and men does not reflect in the increases of their relative domestic responsibilities over the course of immigration.

In its third paper, this dissertation explores the significance of adolescent socialization for female migrants' employment trajectories (Krieger, 2020a). This research endeavor is based on insights from Socialization Theory. According to Socialization Theory, experiences made in adolescence drive later life decisions and behaviors. Hence, the paper hypothesizes that exposure to female employment in adolescence should matter for female migrants' later labor market integration. The results confirm this hypothesis: immigrant women's employment is positively associated with the female to male labor force participation ratio in their country of origin during their adolescence. Furthermore, immigrant women, whose mothers worked, are less affected by the societal dynamics in their home countries, highlighting the significance of role models. Accordingly, this paper illustrates that looking into migrants' socialization with respect to norms and values is crucial for understanding their employment (see Table 1).

Table 1. Contribution of the dissertation to the existing empirical literature

Theoretical Argument		**Evidence**	**Support for Theory**
Selection	Individual	Yes	Yes
	Household	No	No
Legal status		Yes	Yes
Domestic Work		No	No
Human Capital	Family Investment Hypothesis	Yes	No
	Other	No	
Social Networks		No	
Norms and Values	Country of Origin	Yes	Yes
	Societal Dynamics	Yes	
	Gender Attitudes	Yes	
	Family	Yes	
	Socialization	No	Yes
Institutions		Yes	Unclear
Discrimination		Yes	No

Note: Blue marks the areas this dissertation provides evidence for.

Contributions to the Literature

This dissertation contributes to three bodies of literature. First, this dissertation synthesizes theoretical insights on migration, gender, and employment, thereby developing a first coherent framework for studying the determinants of the differential employment experiences of

immigrant women and men. With this, the dissertation contributes to the theoretical literature on immigrant employment. The development of this framework was inspired by the empirical observation that immigrant women, relative to immigrant men, are severely disadvantaged on host country labor markets. However, existing frameworks for understanding immigrant employment modelled immigrants as a largely homogenous group of individuals, failing to acknowledge the gender-specific experiences immigrants make. Hence, the framework developed in this dissertation greatly extends existing theoretical accounts.

Second, based on this framework, this dissertation empirically investigates three mechanisms that were hypothesized to explain the differential employment of immigrant women and men (see Table 1). These mechanisms had not yet been investigated before. Accordingly, these analyses contribute to the empirical literature on immigrant employment, specifically adding knowledge to the understanding of female and male labor market integration. As the three empirical papers of this dissertation further uncover gender-specific dynamics, they highlight the significance of gendered empirical integration research.

Finally, this dissertation's conclusions contribute to the sociological literature on gender inequalities. In the broader sociological literature, great research efforts are devoted to documenting and explaining gender inequalities across various life domains. This dissertation contributes to this literature by drawing attention to the experiences of migrants of both genders, a life domain that is not yet well documented but is of increasing importance as the number of individuals leaving their home countries is continually rising (IOM, 2019). Thus, a key lesson from this dissertation is that even when a research tradition has not theoretically acknowledged gender-specific processes, to date, investigating these is crucial for understanding social dynamics. Specifically, this dissertation highlights that gender inequalities can be reproduced and reinforced across social processes and life events. Overall, this dissertation thus contributes to theoretical and empirical research on immigrant employment as well as to broader sociological research on gender inequalities.

Implications of Findings

Together, the results of the three empirical papers of this dissertation further have six key implications for future research, theory, and policy. First, this dissertation shows that the migration decision and process do not equally affect the employment of immigrant women and men. For instance, whereas the position in the migration decision is decisive for men's employment patterns after immigration, there is no evidence that the same holds true for women. This realization highlights that it is important to acknowledge immigrants' multiple social identities, including their immigration status and gender, and account for these within analysis and regression frameworks to understand their lives after migration.

Second, this dissertation provides evidence for those factors that drive the employment of immigrant women and men. Where the socialization of female migrants is found to be decisive for their employment, couples' divisions of domestic work do not directly mirror the employment patterns of immigrant women and men observed on the labor market. Accordingly, future research should continue looking into the underlying reasons for the differential labor market experience of immigrant women and men, for instance, by using the theoretical mechanisms developed in Chapter 1 and summarized in Table 1.

Third, this dissertation looks at immigrants' past for analyzing their post-immigration employment. More precisely, this dissertation, for instance, considers immigrant women's adolescence and couples' migration decisions to understand later structural integration. Taking this life course perspective, inspired by the theory of Shmuel Eisenstadt, proved highly useful. However, Eisenstadt's (1954) theory is unique in accounting for immigrants' past on a personal, individual level (see Chapter 1). Still, life course research suggests considering individuals' life over even greater stretches, from birth to death (Elder, Kirkpatrick Johnson, & Crosnoe, 2003; Meyer & Rowan, 1977). Based on this dissertation's insight that immigrant's pre-migration past matters for their post-migration integration, integration research should further explore the potentials and implications of insights from life course research.

Fourth, this dissertation's result that migration decisions matter for post-migration outcomes has implications for research on life course events. In the 21st century, the significance of life course events for an individual's life is frequently investigated (see, for instance, Dribe & Stanfors (2009) and Bünning (2019)). This dissertation highlights that, in these investigations, not only life course events themselves but also the decision leading up to getting married or becoming a parent should be carefully considered.

Fifth, this dissertation investigates three aspects of immigrant life that are directly applicable to research focusing on the native population. This application is important as it allows for assessing the viability of theoretical approaches and contextualizing estimates' directions and sizes. Turning to the first two papers of this dissertation, the dynamics investigated in these are previously analyzed for natives who have relocated within a country (Taylor, 2007; Vidal, Perales, & Baxter, 2016). However, this dissertation's results partly contradict these insights, highlighting that conventional theoretical explanations cannot grasp the particular features of migrating to another country as well as its disruptive nature. For instance, this dissertation proposes that two explanations for the divergent results between natives and migrants are individuals' migration motives (see Chapter 2) and migration-specific domestic tasks (see Chapter 3). These explanations emphasize the necessity to combine conventional theoretical approaches with migration-specific knowledge, as done in this dissertation, to theoretically grasp this life event. Furthermore, in contrast to Van Putten, Dykstra, & Schippers (2008), who analyze natives, this dissertation shows that mother's socialization is not significantly related to their daughters' employment among natives. Yet, departing from the research framework of Van Putten, Dykstra, & Schippers (2008), this dissertation additionally considers societal dynamics and their interactions with mothers' socialization efforts, which it finds to matter greatly. It would be desirable to test this insight for natives. This would further extend the current focus of empirical evidence on Socialization Theory to consider different agents of socialization and, crucially, their interaction.

Sixth, this dissertation has policy implications. It finds immigrant women, relative to men, to be disadvantaged on the German labor market, confirming previous empirical results. This calls for specific integrational efforts directed toward women. For instance, as this dissertation's third paper illustrates the power of role models, mentors might be useful for immigrant women at the start of their lives in Germany. Furthermore, this dissertation shows that the first years after immigration are challenging for immigrants of both genders. For instance, their domestic responsibilities increase substantially. Policies should accordingly specifically target these first years in Germany and aim to relieve migrants.

Consequently, this dissertation has important implications for future research and policy. This dissertation comes to its conclusions using data from immigrants in Germany. On the one hand, these results should be applicable beyond the geographic context of Germany. Immigrants who arrive to Germany come from top migrant-sending countries (see Chapter 1) and, therefore, also find residence in other countries around the world (IOM, 2019). However, given the lack of studies that analyze the selectivity of migrants across host countries, it is unclear whether these migrants are similarly selected on further characteristics, apart from their source countries. Additionally, immigrants to Germany enter a conservative, family-oriented welfare state (Esping-Anderson, 1990; Hofäcker, Stoilova, & Riebling, 2013). Research shows that welfare states matter for migrants' integration (Van Tubergen, Maas, & Flap, 2004), which could limit this dissertation's potential to generalize its results to countries around the world.

Limitations

This dissertation is subject to limitations. This dissertation relies on SOEP data, which annually surveys immigrants in Germany. Yet, the SOEP does not sample immigrants immediately upon their immigration but rather several years thereafter. This causes three issues: first, immigrants who were disappointed with their immigration experience might have left Germany before they could be interviewed by the SOEP. For instance, considering the third paper of this dissertation,

it might be that women who were unsuccessful in securing employment upon immigration left Germany before they could enter the SOEP sample. This would leave this dissertation's sample of immigrants with more positive employment experiences than the average. Similar reasoning can be applied to the first two papers of this dissertations. Therefore, each paper critically discusses selective return migration in its conclusion. Second, given that the SOEP samples immigrants within Germany, information on migrants' pre-migration circumstances is only retrospectively provided. This concerns all papers of this dissertation: the migration decision, the time use before immigration, as well as female migrants' adolescent experiences were surveyed after immigration rather than at the time of interest. However, retrospectively provided information can be clouded by experiences made in Germany. In its first paper, this dissertation shows that partners' retrospective accounts are largely consistent with one another, even as the time since immigration increases. Similarly, the other papers carefully consider the implications of retrospectivity in their conclusions. Still, retrospectivity is a concern that highlights the absolute necessity to work toward combined source- and host-country survey data. This would also help to overcome the first limitation of this dissertation and allow for analyses of immigration streams across countries, which would be useful to assess migrant selection. Finally, survey data, in comparison to administrative data, might be subject to reporting errors. For instance, respondents might feel that some responses are more appropriate than others. With respect to this dissertation, this might be relevant when respondents feel uncomfortable reporting unemployment or non-employment spells. Still, survey data offers rich information on respondents' lives, which are unavailable in administrative sources. In fact, this dissertation's research questions could not have been answered with administrative data but relied on the SOEP's rich, deep, and unique insights into immigrant life in Germany.

Finally, this dissertation discusses 'gender' but only draws a binary distinction between women and men. However, as pointed out in Chapter 1, 'gender' is not determined by 'sex' but individuals can see themselves as men, women, as having no, or non-binary gender (Westbrook

& Saperstein, 2015). Still, the SOEP only allows for a binary distinction between women and men. Hence, one critical avenue for future research is to combine integration research with measures of gender identity that move beyond a binary distinction. Further avenues for future research are discussed in the following section.

Future Research Avenues

Further future research avenues are manifold. The discussion of the empirical evidence on the employment of immigrant women and men in Chapter 1 illustrates that, although several theoretical mechanisms are already explored, the evidence is mostly limited to single countries. Checking the interplay of the theoretical mechanisms with various receiving contexts is an important step toward generating coherent knowledge on female and male migration and integration. This remark also holds with respect to this dissertation's papers. It would be highly desirable to test this dissertation's conclusions across countries and time periods.

Furthermore, this dissertation shows that there are gender-specific determinants of immigrant employment. Considering further dimensions of employment, such as income or occupational prestige, could further sharpen our understanding of the experiences immigrant women and men make. To this end, it would also be useful to investigate further integration domains, such as political participation, contacts to natives, and language skills, also determining whether and how gender-specific dynamics in migration influence these.

However, gender is not the only social identity that can be hypothesized to cause heterogenous experiences among migrants. Further social characteristics, like race or social class, could further interact with gender and migration to produce unique dynamics. Considering these further characteristics of individuals is another promising research avenue.

Finally, this dissertation excludes refugees from its analyses. For refugees, the migration event is even more disruptive than for immigrants and might add further gender-specific

components, for instance, when considering the migration journey. This is worth exploring, especially with respect to the recent refugee flows to Germany, Europe, and beyond.

Overall, this dissertation provides important insights into the employment of immigrant women and men in Germany, highlighting the importance of gendered integration research. As this section shows, these results have far-reaching implications for research, theory, and policy, thus paving the way to interesting and promising future research.

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ACKNOWLEDGEMENTS

First and foremost, I would like to thank my supervisors, Martin Kroh and Philipp Lersch, for their guidance, support, and feedback. Furthermore, I am thankful for all colleagues at the German Institute of Economic Research, who have supported me and my research in the past three years. I wish to especially thank Luise Burkhardt, Andreas Franken, Jannes Jacobsen, Hannes Kröger, Adam Lederer, Nicolas Legewie, Lea-Maria Löbel, Jana Nebelin, Claire Samtleben, Felicitas Schikora, and Katja Schmidt. I would like to thank Zerrin Salikutluk for our fruitful collaboration and the Joachim Herz Foundation for awarding me the Add-On Fellowship for Interdisciplinary Economics. Finally, I wish to thank family and friends who have supported me along the way.

SUMMARY

Women and men around the world are on the move. However, their experiences after migration differ. Specifically, compared to immigrant men, immigrant women are disadvantaged on host country labor markets. To date, theoretical and empirical evidence on the underlying reasons for this empirical pattern is scarce. Hence, in its first chapter, this dissertation develops a theoretical framework for understanding migration, gender, and employment. This framework argues that gender inequalities on the labor market are reinforced and reproduced across immigration. In its three empirical chapter, this dissertations tests three theoretical mechanisms that are hypothesized to drive this process of reinforcement and reproduction.

This dissertation's first paper addresses the following research question: How do dynamics in couples' decision to migrate impact the employment of immigrant women and men? Theoretically, this research puzzle is discussed with regard to the tied migration theory and gendered versions of it. Empirically, the chapter analyzes data on couples' migration decisions from the German Socio-Economic Panel (SOEP). The results show that immigrant men who drove migration decisions are vocationally more successful after immigration than those men whose partners initiated migration. In contrast, women's position in the migration decision does not matter for their later employment.

The second empirical paper of this dissertation asks: How does migration impact the time spent on domestic work of immigrant women and men? Therefore, the paper draws on theoretical notions of Neoclassical Economic and Bargaining Theory, ideas of Gender Construction, and integrates migration-specific aspects into these arguments. For its empirical analyses, the paper uses SOEP data and couples' time use accounts before and after immigration. The results of this paper indicate that the time spent on domestic work increases drastically for immigrant women and men after migration, yet only in the short-term.

The third empirical paper of this dissertation looks at female migrants' socialization. It asks: How does adolescent socialization impact the employment of immigrant women? The paper's hypotheses are based on Socialization Theory, it bases its analyses on SOEP data. The paper concludes that society-level socialization matters greatly for female migrants' later employment. However, mothers and their socialization efforts can buffer society-level impacts.

Overall, this dissertation emphasizes the significance of gendered integration research and the necessity to further explore the differential employment of migrant women and men.

ZUSAMMENFASSUNG

Weltweit migrieren Männer und Frauen, wobei sie die Zeit nach Migration jedoch grundsätzlich verschieden erleben. Insbesondere werden Migrantinnen schlechter in die Arbeitsmärkte ihrer Ankunftsländer integriert als Migranten. Theoretische und empirische Erklärungen hierfür sind bislang unzureichend. Daher entwickelt diese Dissertation zunächst ein theoretisches Rahmenkonzept zu Migration, Geschlecht und Erwerbstätigkeit. Das Kernargument dieses Rahmenkonzepts ist, dass sich Geschlechterunterschiede auf dem Arbeitsmarkt über den Migrationsprozess reproduzieren und verstärken. Die empirischen Papiere der Dissertation testen drei Mechanismen, die diesen Prozess bedingen könnten.

Im ersten Papier betrachtet diese Dissertation die folgende Frage: Wie wirken sich Dynamiken in den Migrationsentscheidungen von Paaren auf deren Erwerbstätigkeit aus? Das Papier diskutiert diese Forschungsfrage im Licht der tied migration theory. Zur empirischen Analyse zieht das Papier Daten des Sozio-oekonomischen Panels (SOEP) zu Migrationsentscheidungen von Paaren heran. Die Resultate zeigen, dass Männer, die die treibende Kraft der Migrationsentscheidung in ihrer Beziehung waren, nach Immigration beruflich erfolgreicher sind als Männer, deren Partnerin die Entscheidung traf. Für den Erwerbsverlauf von Frauen spielt die Entscheidungsfindung dagegen keine Rolle.

Im zweiten empirischen Paper fragt diese Dissertation: Wie entwickelt sich die Zeit, die Frauen und Männer auf Hausarbeit verwenden, über den Migrationsprozess? Hierfür bezieht sich das Papier theoretisch auf Neoklassische Theorie und Verhandlungstheorie sowie auf Ideen der Geschlechterkonstruktion und integriert migrationsspezifische Aspekte in diese Argumente. Für die empirischen Analysen verwendet das Papier wiederum Daten des SOEP und Angaben zur Zeitverwendung vor und nach Migration. Die Resultate des Papiers zeigen, dass die Hausarbeit für Männer und Frauen nach Migration stark ansteigt, jedoch nur kurzfristig.

Im dritten Papier betrachtet diese Dissertation die Sozialisierung von Migrantinnen. Das Papier fragt: Wie beeinflusst die Sozialisierung von Migrantinnen ihre spätere Erwerbstätigkeit? Die theoretische Herleitung des Papiers beruht auf der Sozialisationstheorie, die Analysen beruhen auch hier auf Daten des SOEP. Das Papier schlussfolgert, dass gesellschaftliche Sozialisierung einen großen Einfluss auf die spätere Erwerbstätigkeit von Migrantinnen hat, jedoch können die Sozialisierungsanstrengungen von Müttern diesen Effekt abfedern.

Zusammenfassend verdeutlicht diese Dissertation die Bedeutung von geschlechtsspezifischer Integrationsforschung und die Notwendigkeit der unterschiedlichen Erwerbstätigkeit von Migrantinnen und Migranten weiter auf den Grund zu gehen.